

NUTRIENT MANAGEMENT PLAN UPDATE

CROP YEAR 2012

Confidential until fully implemented

**HEMLOCK VALLEY FARMS
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Executive Summary

This is the Nutrient Management Plan for the 201¹₂ crop year. Refer to the following chart for farmstead updates.

	If your farmstead <u>has not significantly</u> changed the following documentation has been added in addition to the table of contents. 1. Operation and Maintenance Protocols 2. Implementation Schedule 3. Contact Log This documentation can be found in Section V. Records.
	If the farmstead <u>has significantly</u> changed within the previous year, please refer to your separate farmstead update package for documentation.

If you are unsure where to locate this additional document please contact your planner.

As a part of the General Permit No. 0-09-001, Medium and Large CAFO are required to keep records and maintain records for 5 years. If records are not complete, it is considered a violation of their permit coverage. Records are the responsibility of the Client. Misrepresenting records to DEC and/or EPA is not only punishable by fines but can be considered a criminal offense. It is strongly recommended to work with your planner on keeping complete and accurate records at all times. To help manage the records would you like us to:

- X** Provide an electronic record keeping program for on-farm use
- Pick up your records and enter into the record keeping program to report to you progress throughout the year
- Enter records into the program as you fax or mail them to us?

Note: It has come to our attention on inspections that EPA has requested copies of actual soil tests. To reduce paper use and computer memory, a CD containing actual soil test results has been included if soil samples were taken by ACRES. If soil samples were not taken by ACRES please contact the responsible representative that took your samples for a copy of the actual soil test results.

It has also come to our attention that USDA pull funding from farms that intentionally or unintentionally alter wetlands. If a determination has not been completed for a tract of land, do not clear, ditch, tile, or alter the area without first completing paperwork with NRCS. NRCS must then make a determination on the land.

Wetlands

Obtaining Wetland Determinations/Delineations

Prior to land manipulation or land clearing, USDA farm program participants need to complete a revised form AD-1026 at the local Farm Service Agency (FSA) office, which has the effect of requesting a certified wetland determination if one is needed to ensure compliance. Some States also use NRCS Form CPA-038 for participants to request a certified wetland determination. NRCS will provide a certified wetland determination and advice about planned activities. NRCS may also conduct wetland determinations if they are providing financial or technical assistance to the landowner for a project that may impact wetlands, or if needed for other USDA programs.

What is prior converted cropland?

Prior converted croplands (PC) are wetlands that were drained, dredged, filled, leveled, or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, to make production of an agricultural commodity possible, and that (1) do not meet specific hydrologic criteria, (2) have had an agricultural commodity planted or produced at least once prior to December 23, 1985, and (3) have not since been abandoned. Activities in prior converted cropland are not regulated under Swampbuster or CWA Section 404.

What are farmed wetlands?

Farmed wetlands (FW) are similar to prior converted cropland in that they were drained, dredged, filled, leveled, or otherwise manipulated before December 23, 1985, to make production of an agricultural commodity possible, but are often wet enough to still be valuable wetland habitat subject to Swampbuster and CWA Section 404.

Farming Activities that are Exempt from Section 404

Contact the Corps before undertaking these activities in wetlands and other waters of the United States to verify applicability of the exemptions.

- Established (ie., ongoing), normal farming activities. (Plowing, Harvesting, Seeding, Minor Drainage and Cultivating.)
- Maintenance, but not construction, of drainage ditches.
- Construction and maintenance of irrigation ditches.
- Construction and maintenance of farm or stock ponds.
- Construction and maintenance of farm roads, in accordance with best management practices.

Questions to Answer Before Starting a New Activity

Are you a USDA program participant?

(USDA program participants are required to document their intent to manipulate wet areas on Form AD-1026 at the local USDA Consolidated Farm Service Agency office.)

YES Do you have a "certified wetland determination"?		NO Is the activity you plan on agricultural land?	
YES	NO	YES	NO Contact the Corps of Engineers for a wetland delineation
Contact NRCS for a wetland delineation; then			
Is the area prior converted cropland (PC) or non-wetland (NW)?			
YES No 404 permit required - verify that the planned activity will maintain your USDA program eligibility.		NO Is the activity exempt from the permit requirement under CWA 404(f)? Most normal farming activities are exempt.	
		YES No 404 permit required - verify with the Corps of Engineers. Consult with NRCS to assure compliance with Swampbuster.	
		NO Section 404 permit required; consult with the Corps of Engineers as to whether a general or individual permit applies. Consult with NRCS to assure compliance with Swampbuster.	

The legend on FSA producer maps will look approximately as follows:

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Red Octagon Symbol – Restricted Use

- Represents these wetland determinations:
 - W – Wetland
 - CW, CW+YR – Converted Wetland + Year
 - AW/W – Artificial Wetland/Wetland
 - GFW, GFW+YR – Good Faith Wetland + Year
 - RSW, RSW+YR – Restored Wetland + Year
 - RPW – Replacement Wetland

Yellow Triangle Symbol – Limited Restrictions

- Represents these wetland determinations:
 - FW – Farmed Wetland
 - FWP – Farmed Wetland Pasture
 - CWNA – Converted Wetland, Non-ag Use
 - AW/FW – Artificial Wetland/Farmed Wetland
 - CWTE – Converted Wetland Technical Error
 - TP – Third Party Conversion
 - WX – Manipulated Wetland
 - MW, CMW – Minimal Effect Wetlands
 - MIW, MWM – Mitigation Wetlands
 - NI – Not Inventoried
 - OW – Other Waters
 - Easement

Green Square Symbol – Exempt from Wetland Compliance Restrictions

- Represents these wetland determinations:
 - PC – Prior Converted
 - NW – Non Wetland
 - PC/NW – Prior Converted/Non-Wetland
 - CC – Commenced Conversion
 - NW/NAD – Non Wetland, NAD Decision
 - AW – Artificial Wetland

ACRES' Copy _____

Client's Copy _____

Date Reviewed _____
With _____

The following is an annual update of the Nutrient Management Plan (NMP) as required by the CAFO process. The documentation provided should be available should the DEC make a farm visit and request information. Refer to this material when making nutrient applications.

The outline below lays out the format that will be used.

I. Comprehensive Nutrient Management Update

- a. Animal Numbers
- b. Land Base
- c. Dairy Ration Information
- d. Manure Spreader Calibration
- e. Manure Storage

II. Tracts of Land and Field Information

- a. Dropped and Added Tracts
- b. Field Information
 - i. P-Index and Nitrogen Leaching Index
 - ii. Field Assessments (new fields) → Maps
 - iii. Cropland BMP's (new fields)
 - iv. Rotations

III. Test Results

- a. Soil Tests
- b. Manure Tests

IV. Nutrient Management Plan

- a. Fields Requiring N BMP Strategies
- b. Fields Requiring Strategies to Reduce P Runoff
- c. Spreading Risk Assessment
- d. Nutrient Budget
- e. Nutrient Management Summary
 - i. Fertilizer Blends
 - ii. Lime Recommendations
 - iii. Notes

V. Record Keeping Forms

VI. Contact Log

Tables

- Table 1 Field Information
Table 2 RUSLE-Soil Loss
Table 3 Soil Test Results
Table 4 Nutrient Budget

- Table 5 Fertility Calculations
Table 6 Nutrient Management Summary
Table 7 Fertilizer Blends
Table 8 Lime Recommendations

Appendices

- Appendix 1 Nitrogen Leaching Index (NLI)
Appendix 2 P-Index
Appendix 3 Cropland BMP's
Appendix 4 NLI > 10 for Corn Fields Receiving Manure

I. Comprehensive Nutrient Management Plan (CNMP)

The CNMP is designed to take into account many different factors that may influence the build up of nutrients within the soil, and, factors that may result in the loss of those nutrients to creeks, streams, wells, etc. The strategies laid out are to meet NY312, NY590, and NY633. Keeping records (NY748) of inputs and yields will allow for more accurate management strategies to be implemented.

As this is a comprehensive plan, detail about the dairy ration, spreader calibrations, and manure storage capacity is also included.

A. Animal Numbers

The farm has 546 mature dairy cows and 365 heifers. The total number of animal units is 992.2. The amount of waste generated is calculated to be 6 million gallons. The animal numbers have not changed significantly from the previous year. The farm can easily add onto cow numbers without exceeding nutrient loading rates. Cow numbers could increase by 100+ animals with concern.

B. Waste Calculations

In order to determine the amount of generated waste the following calculations were used;
No. of cows x (Ave. wt/1000 lbs) + No. of heifers x (Ave. wt/1000 lbs) = No. of animal units
No. of animal units x 18 ton of manure produced per year per animal unit=tons of manure
Annually

Bedding used

Source	Tons per year
Lime	780
Straw/hay	348
Newspaper	139

Amount of rain or sprinkler water entering manure storage annually=gallons per year

Source	Surface Area (sq.ft)	Total Gallons
Pit 1 (100' x 60')	Roofed	
Pit 2 (100' x 60')	6000	154,000
Pit 3 (40' x 80')	3200	82,300
110' diameter	9498	277,700

Amount of Milkhouse waste water (MHWW) generated annually=gallons per year

Source	Gallons per Day
Parlor and milkhouse	3000

Tons of manure and bedding are added, multiplied by 2000 and divided by 8.35 lbs to get gallons generated annually. Add total to MHWW volume and Rainwater volume for total volume to be managed.

C. Land base

The farm operates 1915.3 tillable acres; 967.8 acres of corn, 640.4 acres of hay, 182.9 acres of new seeding and 92.6 soybeans and 31.6 acres of cereal crops. An additional 54.9 acres is for pasture. The number of animal units per acre is 0.60.

D. Dairy Ration Information

The dairy ration is currently balanced by Doug Rockwell. (607-687-8135). The National Research Council has determined that dairy cows can produce milk and breed satisfactorily with dietary P levels as low as 0.32% of the ration DM. Before dropping to this level make sure

benchmarks are in place to avoid financial losses. A middle of the road level would be to have the dietary P level at 0.38% of the ration DM. Your level in the diet is 0.38%. By minimizing overfeeding P in the diet manure P should be reduced.

Milk urea nitrogen (MUN) levels should also be checked to determine if too much protein may be fed for the amount of carbohydrates in the diet. Reducing the amount of N excreted in the manure and urine will be beneficial both environmentally and herd health wise. Work with your nutritionist to optimize accordingly.

E. Manure Spreader Calibrations

Manure spreader calibrations are necessary to help determine accuracy in covering fields with the right number of loads. If spreaders have not changed from the last plan update no additional calibrations were completed. If a new spreader has been added to the operation the following information outlines the spreader details.

Spreader	Capacity	Gal.	Tons	Spread Width	
HS 310	5.4		X	12'	
4-Houle 4250	14.7		X	30-40'	
Husky 4250	14.7		X	30-40'	

F. Manure Storage Capacity

The amount of storage capacity normally does not change without making structural changes; however, the number of months worth of storage can be affected by cow number, additions of milkhouse waste water, bedding use, or poor exclusion of rain water. The following is intended to be used as a guide to help determine timing of applications.

Storage Structure	Volume (gallons)	Months Storage based on Waste Calculations
Pit 1 Dairy	427,500	3.5 mos.
Pit 2 Dairy	517,500	
Pit 3 Heifer	225,000	5 mos.
Pit 4 MHWW	819,245	7.5 mos.

II. Tracts of Land and Field Information

A. Dropped and Added Tracts

From time to time a farm may add or drop additional tracts of rented or leased land. Tracts of land that have been inventoried and have been designated for manure applications are documented here. Tracts that have been dropped from the plan are also noted.

DROPPED TRACTS OF LAND	Modified Fields	ADDED TRACTS OF LAND
Twomey7	Banner 6 was on maps 2x Banner 6 4.8ac Banner6 4.1ac 4.1ac became Banner 7 Green 20 was on maps 2x Green20 3.9ac Green20 3.0ac 3.9ac became Green21	Mt Vision 1 and 2

B. Field Information

- i. The purpose for **Table 1, “Field Information,”** is to lay out field characteristics that may be of interest to the farm. It also provides documentation for the **Nitrogen Leaching Index (NLI) and the Phosphorus Index (P-Index)** for each field. (DP=Dissolved Phosphorus; PP=Particulate Phosphorus) SMG = Soil Management Group. Information about the NLI and P-Index can be found here as well. Refer to **Appendix 1 and Appendix 2**, respectively.

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	SOIL SYMBOL	SOIL TYPE	CORN Bushels	Corn	HAY YIELD	CROP YIELD POT (T/AC)		HYDRO CODE	DRAINAGE	PERMEABILITY	LEACHING POTENTIAL	RUNOFF POTENTIAL	Dist. to water	Flooding	% SLOPE	LENGTH OF SLOPE	SOIL LOSS	SMG	NLI	P Index	
										A	B													DP	PP
Airport 1	Airport 1	10	AGE	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	2	100	1.6	3	14.7	59	59	N	
Airstrip	Airstrip	4	GIT	Cont. Corn	LfC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	100	Rare (None)	1	100	0.9	3	5.4	5	5	N	
Banner 2	Banner 2	11.2	COS.8	Cont. Corn	BfB	Bath	125	21	5	C	W	LOW	LOW	HIGH.	10	Rare (None)	2	150	1.7	3	5.4	36	36	N	
Banner 3	Banner 3	17.1	AGE	C3H7	BfB	Bath	125	21	5	C	W	LOW	LOW	HIGH.	100	Rare (None)	10	200	2.8	3	5.4	34	38	Y	
Banner 5a	Banner 5a	5.2	GIT	Grass	BfB	Bath	125	21	5	C	W	LOW	LOW	HIGH.	300	Rare (None)	14	225	1.2	3	5.4	4	5	Y	
Banner 5b	Banner 5b	18.3	AGT.5	C2H6	BfB	Bath	125	21	5	C	W	LOW	LOW	HIGH.	100	Rare (None)	12	225	3	3	5.4	37	41	Y	
Banner 6	Banner 6	4.8	AGT.5	C6H4	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	30	Rare (None)	6	175	3.1	3	5.4	37	37	Y	
Banner 7	Banner 7	4.1	GIT	Grass	BfB	Bath	125	21	5	C	W	LOW	LOW	HIGH.	200	Rare (None)	16	175	1.2	3	5.4	22	23	Y	
Banner 9	Banner 9	11	GIT	Grass	BfB	Bath	125	21	5	C	W	LOW	LOW	HIGH.	20	Rare (None)	0	0	3	3	5.4	6	6	N	
Barlow 1	Barlow 1	3	GIT	Grass	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	12	200	1	3	5.4	10	10	Y	
Barlow 2	Barlow 2	9	AGE	Grass	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	12	200	1	3	5.4	36	36	Y	
Barlow 3	Barlow 3	6	GIT	Grass	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	12	200	1	3	5.4	6	6	Y	
Barlow 4	Barlow 4	5	GIT	Grass	BfD	Bath	125	21	5	C	W	LOW	LOW	HIGH.	20	Rare (None)	20	175	1.7	3	5.4	6	6	Y	
Barlow 5	Barlow 5	6	GIT	C6H4	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	5	300	2.7	3	14.7	6	6	N	
Barlow Flat	Barlow Flat	39.1	ALT.6	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	3	50	1.6	3	14.7	45	45	N	
Broe 1&2	Broe 1&2	22.8	COG.6	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	10	Occasional	2	50	2	2	9.1	55	55	N	
Broe 3	Broe 3	21	COG.6	Cont. Corn	Hb	Hamplain	150	25	5.5	B	W	MOD.	MOD.	MOD.	50	Rare (None)	2	200	2.8	2	9.1	65	65	N	
Broe 4	Broe 4	26	SOY.1	Cont. Corn	ScA	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	50	Rare (None)	2	50	1.6	3	9.1	23	23	N	
Broe 6	Broe 6	10.2	GIT	Cont. Corn	Hb	Hamplain	150	25	5.5	B	W	MOD.	MOD.	MOD.	75	Rare (None)	4	150	4.7	2	9.1	24	24	N	
Broe 7	Broe 7	16	COG.2	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	150	Occasional	2	50	1.7	2	9.1	58	57	0	
Broe 10	Broe 10	22.3	COG.4	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	2	50	1.2	3	14.7	52	52	0	
Burton 1	Burton 1	9.9	AGT.1	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	350	Rare (None)	1	200	1	3	16.6	5	5	N	
Burton 2	Burton 2	4	COG.8	Cont. Corn	Wb	Wakeville	110	19	4	B	S	MOD.	MOD.	MOD.	20	Occasional	2	50	1.7	3	10.6	33	33	N	
Burton 3a	Burton 3a	6	COG.8	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	10	Occasional	2	75	1.4	2	10.6	33	33	N	

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	Soil Symbol	Soil Type	Corn Bushels	Hay Yield	Crop Yield Pot (t/ac)		Soil Properties & Management						P Index							
									Hydro Code	Drainage	Permeability	Leaching Potential	Runoff Potential	Dist. to water	Flooding	% Slope	Length of Slope	Soil Loss	SMG	NLI	DP	PP	HEL	
Burton 3b	Burton 3b	9	Idle	Cont. Corn	Wg	Wayland	95	16	2.5	C	P	Low	Low	High.	60	Frequent	1	110	1.2	2	6.6	3	3	N
Burton 4	Burton 4	8	COG.8	Cont. Corn	Wb	Wakeville	110	19	4	B	S	Mod.	Mod.	Mod.	20	Occasional	2	50	1.7	3	10.6	35	35	N
Burton 5	Burton 5	21.2	COG.8	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	3	100	2.3	3	16.6	34	34	N
Denny 1	Denny 1	11	AGT.2	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	10	Rare (None)	3	75	2.1	3	14.7	44	44	N
Denny 2	Denny 2	12.2	AGE	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	200	Rare (None)	2	50	1	3	14.7	37	37	N
Denny 3	Denny 3	7.9	AGE	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	100	Rare (None)	5	75	2.8	3	14.7	51	57	N
Eggleston 1	Eggleston 1	15	COS.6	Cont. Corn	MeB	Mardin	120	20	4.5	C	M	Low	Low	High.	150	Rare (None)	4	175	3.1	3	5.4	54	55	N
Eichler 1	Eichler 1	4.9	AGT.3	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	100	Rare (None)	2	50	1.4	3	14.7	48	50	N
Eichler 2	Eichler 2	14.9	AGE	C6H4	ChA	Chenango	130	22	5.5	A	W	High	High	Low	50	Rare (None)	5	100	2.3	3	14.7	51	51	N
Eichler 3	Eichler 3	10.6	ALT.6	C2H6	ChC	Chenango	130	22	5.5	A	W	High	High	Low	50	Rare (None)	12	175	3.2	3	14.7	41	41	Y
Eichler 4	Eichler 4	10.7	AGT.3	Cont. Corn	ChC	Chenango	130	22	5.5	A	W	High	High	Low	100	Rare (None)	4	150	3	3	14.7	42	47	Y
Eichler 5	Eichler 5	11.9	COS.1	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	150	Rare (None)	2	100	1.6	3	14.7	22	24	N
Eichler 6	Eichler 6	6.2	AGE	Cont. Corn	CfB	Castile	135	23	5.5	B	W	Mod.	Mod.	Mod.	10	Rare (None)	3	175	2.7	4	9.1	50	50	N
Foster 1	Foster 1	8.1	COS.4	Cont. Corn	VaB	Valois	130	22	5.5	B	W	Mod.	Mod.	Mod.	10	Rare (None)	3	150	2.3	3	9.1	66	66	Y
Foster 2	Foster 2	6.7	AGE	Cont. Corn	VaC	Valois	130	22	5.5	B	W	Mod.	Mod.	Mod.	100	Rare (None)	4	100	2.6	3	9.1	39	44	Y
Foster 3	Foster 3	9.8	AGE	C2H6	VaD	valois	130	22	5.5	B	W	Mod.	Mod.	Mod.	30	Rare (None)	18	150	4	3	9.1	41	41	Y
German 1	German 1	3.1	AGE	Cont. Corn	VoB	Volusia	105	18	3.5	C	S	Low	Low	High.	20	Rare (None)	3	100	2	3	5.4	47	47	N
German 2	German 2	6.1	AGE	C6H4	Cp	Chippewa	100	17	2.5	D	P	V. Low	V. Low	V. High	10	Rare (None)	5	200	2.3	3	3.6	42	42	N
German 3	German 3	2.9	AGE	C6H4	Cp	Chippewa	100	17	2.5	D	P	V. Low	V. Low	V. High	10	Rare (None)	5	100	1.8	3	3.6	38	38	N
Green 1	Green 1	19.6	AGT.1	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	3	150	2.6	3	16.6	59	59	N
Green 2	Green 2	15.8	AGT.1	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	3	150	2.6	3	16.6	54	54	N
Green 3	Green 3	16	COS.2	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	3	150	2.6	3	16.6	67	67	N
Green 4	Green 4	13.9	COS.2	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	5	100	3.2	3	16.6	62	62	N

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	Soil Symbol	Soil Type	Corn Bushels	Hay Yield	Crop Yield Pot (t/ac)		Soil Properties & Management						P Index							
									Hydro Code	Drainage	Permeability	Leaching Potential	Rainoff Potential	Dist. to water	Flooding	% Slope	Length of Slope	Soil Loss	SMG	NLI	DP	PP	HEL	
Green 5	Green 5	15.4	COS.2	C6H4	ChB	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	4	150	2.1	3	16.6	72	72	N
Green 6	Green 6	17	COS.2	Cont. Corn	ScA	Scio	140	24	5	B	M	Mod.	Mod.	Mod.	20	Rare (None)	3	150	2.8	3	10.6	56	56	N
Green 7	Green 7	3.5	COS.2	Cont. Corn	Ot	Otego	150	25	5	B	M	Mod.	Mod.	Mod.	5	Occasional	2	100	1.8	2	10.6	33	33	N
Green 8	Green 8	6.1	COS.8	Cont. Corn	ScA	Scio	140	24	5	B	M	Mod.	Mod.	Mod.	10	Rare (None)	3	75	2.8	3	10.6	44	44	N
Green 9	Green 9	5.7	COS.5	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	3	150	2.6	3	16.6	73	73	N
Green 10	Green 10	10	AGT.4	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	20	Rare (None)	2	200	1.9	3	16.6	53	53	N
Green 11	Green 11	6.9	AGT.3	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	50	Rare (None)	2	150	1.8	3	16.6	65	65	N
Green 12	Green 12	13.1	AGT.4	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	10	Rare (None)	3	100	2.3	3	16.6	83	83	N
Green 13	Green 13	4.5	COG.6	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	5	Rare (None)	2	100	1.6	3	16.6	63	63	N
Green 14	Green 14	7	COS.8	Cont. Corn	UnA	Unadilla	140	24	6	B	W	Mod.	Mod.	Mod.	20	Rare (None)	2	150	2.7	3	10.6	53	53	N
Green 15	Green 15	6.6	COS.8	Cont. Corn	UnA	Unadilla	140	24	6	B	W	Mod.	Mod.	Mod.	20	Rare (None)	2	150	2.7	3	10.6	53	53	N
Green 16	Green 16	6.3	COS.8	Cont. Corn	UnA	Unadilla	140	24	6	B	W	Mod.	Mod.	Mod.	20	Rare (None)	4	75	2.9	3	10.6	45	45	N
Green 17	Green 17	8	AGT.7	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	400	Rare (None)	3	100	2	3	16.6	5	10	N
Green 18	Green 18	13.5	COG.8	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	30	Rare (None)	1	200	0.9	3	16.6	67	67	N
Green 19	Green 19	2.7	COG.8	Cont. Corn	ScA	Scio	140	24	5	B	M	Mod.	Mod.	Mod.	250	Rare (None)	1	100	1.4	3	10.6	20	14	N
Green 20	Green 20	4.4	COG.6	Cont. Corn	ScA	Scio	140	24	5	B	M	Mod.	Mod.	Mod.	20	Rare (None)	3	50	2.9	3	10.6	41	41	N
Green 21	Green 21	3.9	COG.4	Cont. Corn	ScA	Scio	140	24	5	B	M	Mod.	Mod.	Mod.	5	Rare (None)	1	100	1.4	3	10.6	40	40	U
Hansen 1	Hansen 1	4.5	AGE	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	High	High	Low	500	Rare (None)	1	50	0.8	3	14.9	7	6	N
Hansen 2	Hansen 2	8.7	COG.1	Cont. Corn	TIB	Trestle	145	25	5.5	B	W	Mod.	Mod.	Mod.	10	Occasional	2	75	1.5	3	9.2	25	25	N
Hansen 3	Hansen 3	8.6	AGT.4	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	150	Rare (None)	4	150	3	3	14.9	32	42	N
Hansen 4	Hansen 4	6.4	AGT.5	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	50	Rare (None)	3	100	2.3	3	14.9	53	53	N
Hansen 5	Hansen 5	16.5	COG.1	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	High	High	Low	10	Rare (None)	2	50	1.4	3	14.9	9	9	N
Hansen 6	Hansen 6	20	COG.8	Cont. Corn	ScA	Scio	140	24	5	B	M	Mod.	Mod.	Mod.	50	Rare (None)	1	50	0.9	3	9.2	47	47	N
Hansen 7	Hansen 7	12	COG.8	Cont. Corn	Ot	Otego	150	25	5	B	M	Mod.	Mod.	Mod.	10	Occasional	2	50	1.5	2	9.2	44	44	N

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	SOIL SYMBOL	SOIL TYPE	CORN Bushels	Corn	HAY YIELD	CROP YIELD POT (T/AC)		HYDRO CODE		PERMEABILITY	LEACHING POTENTIAL	RUNOFF POTENTIAL	Dist. to water	Flooding	% SLOPE	LENGTH OF SLOPE	SOIL LOSS	SMG	NLI	P Index		
										B	W	DRAINAGE	MOD.	MOD.	MOD.	MOD.	MOD.	Occasional	1	50	0.7	3	9.2	53	53	N
Hansen 8	Hansen 8	15	COG.8	Cont. Corn	TIB	Trestle	145	25	5.5	B	W	MOD.	MOD.	MOD.	MOD.	MOD.	10	Occasional	1	50	0.7	3	9.2	53	53	N
Hansen 11	Hansen 11	14	COG.8	Cont. Corn	ScA	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	10	Rare (None)	2	50	2.1	3	9.2	50	50	N
Hansen 12	Hansen 12	8.4	AGE	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	200	Rare (None)	3	75	2.1	3	14.9	31	38	N		
Himers	Himers	30.6	COG.5	Grass	MeB	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH	500	Rare (None)	10	350	0.9	3	5.4	9	3	Y		
Hinkley 1	Hinkley 1	28.6	COG.7	Cont. Corn	Hb	Hamplain	150	25	5.5	B	W	MOD.	MOD.	MOD.	MOD.	MOD.	20	Rare (None)	2	200	2.6	2	9.1	51	51	N
Hinkley 2	Hinkley 2	25	SOY.1	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	10	Occasional	2	50	1.7	2	9.1	22	22	N
Hinkley 2a	Hinkley 2a	7	SOY.1	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	30	Occasional	3	75	2.7	2	9.1	10	10	N
Hinkley 3	Hinkley 3	11.5	SOY.1	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	75	Occasional	1	50	1.1	2	9.1	85	85	N
Hinkley 4a	Hinkley 4a	26.2	COG.6	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	30	Occasional	1	50	0.8	2	9.1	41	41	N
Hinkley 4b	Hinkley 4b	10.8	GIT	C6H4	ChC	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	500	Rare (None)	6	150	2.5	3	14.7	2	5	Y		
Hinkley 5	Hinkley 5	3.1	SOY.1	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	20	Occasional	2	200	2.6	2	9.1	24	24	N
Hinkley barnyard	Hinkley barnyard	3.8	GIT	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	20	Occasional	2	200	2.6	2	9.1	6	6	N
Home Flat	Home Flat	12.5	COS.8	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	30	Rare (None)	1	100	0.9	3	14.9	55	55	N		
HVF 1	HVF 1	30.1	AGT.2	Grass	ChD	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	13	200	1.2	3	14.7	62	62	Y		
HVF 2	HVF 2	26.1	COS.6	C2H6	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	8	150	1.7	3	14.7	99	99	Y		
HVF 3	HVF 3	7.3	AGT.2	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	4	100	3	3	14.7	90	90	Y		
HVF 4	HVF 4	8.5	COG.8	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	3	150	2.6	3	14.7	96	96	Y		
HVF 5	HVF 5	16.9	COS.3	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	5	200	3	3	14.7	68	68	Y		
HVF 6	HVF 6	32	COS.8	C6H4	VaC	Valois	130	22	5.5	B	W	MOD.	MOD.	MOD.	MOD.	MOD.	10	Rare (None)	8	200	3.7	3	9.1	71	71	Y
HVF 7	HVF 7	32	COS.2	C3H7	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	6	200	1.6	3	14.7	54	54	Y		
HVF 8	HVF 8	10	ALT.6	C3H7	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	8	150	1.9	3	14.7	81	81	Y		
HVF 9	HVF 9	2.1	GIT	Cont. Corn	ScA	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	MOD.	MOD.	10	Rare (None)	2	50	2.1	3	9.1	64	64	N
HVF 10	HVF 10	5.9	COS.2	Cont. Corn	RhA	Rhinebeck	120	20	4	D	S	V. LOW	V. LOW	V. HIGH	300	Rare (None)	2	50	2.2	2	3.6	23	7	N		

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	SOIL SYMBOL	SOIL TYPE	CORN Bushels	Corn	HAY YIELD	CROP YIELD POT (T/AC)		HYDRO CODE	DRAINAGE	PERMEABILITY	LEACHING POTENTIAL	RUNOFF POTENTIAL	Dist. to water	Flooding	% SLOPE	LENGTH OF SLOPE	SOIL LOSS	SMG	NL	P Index	
										C	S													DP	PP
HVF 11&12	HVF 11&12	28.6	COS.8	Cont. Corn	Ra	Raynham	125	21	3.5	C	S	LOW	LOW	HIGH.	30	Occasional	3	100	3.5	3	5.4	51	51	N	
HVF 13	HVF 13	5	AGT.5	Cont. Corn	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	10	Rare (None)	2	50	2.1	3	9.1	65	65	N	
HVF 14	HVF 14	6.3	GIT	Cont. Corn	Wb	Wakeville	110	19	4	B	S	MOD.	MOD.	MOD.	10	Occasional	2	50	1.7	3	9.1	50	50	N	
HVF 15	HVF 15	9.5	AGT.4	Cont. Corn	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	10	Rare (None)	2	50	2.1	3	9.1	68	68	N	
HVF 16	HVF 16	12.5	GIT	Cont. Corn	ScA	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	10	Rare (None)	2	50	1.6	3	9.1	18	18	N	
HVF 17&18	HVF 17&18	18.7	COG.7	Cont. Corn	ScA	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	100	Rare (None)	2	100	2.5	3	9.1	55	55	N	
HVF 19	HVF 19	6.2	GIT	Cont. Corn	Hb	Hamplain	150	25	5.5	B	W	MOD.	MOD.	MOD.	10	Rare (None)	1	50	1.1	2	9.1	75	75	N	
Kiser 1	Kiser 1	10	COS.5	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	30	Rare (None)	3	150	2.6	3	16.6	84	84	N	
Kolka	Kolka	15.7	AGE	C3H7	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	30	Rare (None)	9	200	2.5	3	5.4	58	58	Y	
Larson 1	Larson 1	25.6	COS.6	C6H4	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	5	150	2.1	3	16.6	69	69	N	
Larson 2	Larson 2	5.6	GIT	C2H6	VaD	valois	130	22	5.5	B	W	MOD.	MOD.	MOD.	15	Rare (None)	14	200	3.6	3	10.6	42	42	Y	
Larson 3	Larson 3	28.7	AGE	C3H7	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	30	Rare (None)	8	225	2.3	3	6.6	41	41	Y	
Larson 4	Larson 4	10.3	GIT	C3H7	LpC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	75	Rare (None)	7	225	2	3	6.6	40	40	Y	
Mark 6	Mark 6	2	AGT.4	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	20	Occasional	1	50	0.8	2	9.2	26	26	N	
Mark 7	Mark 7	3.4	AGT.4	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	1	50	0.8	3	14.9	26	26	N	
Mark Flat	Mark Flat	10	AGT.2	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	10	Rare (None)	2	50	1.4	3	14.9	34	34	N	
Otten	Otten	12	GIT	Cont. Corn	VaC	Valois	130	22	5.5	B	W	MOD.	MOD.	MOD.	50	Rare (None)	4	75	2.4	3	9.2	13	13	Y	
Martindale	Martindale	8.2	AGT.2	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	500	Rare (None)	2	75	1.5	3	14.7	3	4	N	
Mike 1	Mike 1	5.7	GIT	C3H7	LpC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	20	Rare (None)	11	200	2.6	3	5.6	6	6	Y	
Mike 2	Mike 2	6	GIT	Grass	LpC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	20	Rare (None)	20	150	1.8	3	5.6	6	6	Y	
Mike 3	Mike 3	4.2	GIT	Grass	LpC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	20	Rare (None)	20	150	1.8	3	5.6	6	6	Y	
Mt. Vision 1	Mt. Vision 1	19.5	COG.3	Cont. Corn	Hb	Hamplain	150	25	5.5	B	W	MOD.	MOD.	MOD.	10	Rare (None)	2	100	2.1	2	9.1	3	3	U	
Mt. Vision 2	Mt. Vision 2	24.9	COG.3	Cont. Corn	UnA	Unadilla	140	24	6	B	W	MOD.	MOD.	MOD.	10	Rare (None)	2	100	2.8	3	9.1	10	10	U	

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	Soil Symbol	Soil Type	Corn Bushels	Hay Yield	Crop Yield Pot (t/ac)		Soil Properties & Management						P Index							
									Hydro Code	Drainage	Permeability	Leaching Potential	Rainoff Potential	Dist. to water	Flooding	% Slope	Length of Slope	Soil Loss	SMG	NLI	DP	PP	HEL	
Mullane	Mullane	15.8	GIT	Cont. Corn	VaB	Valois	130	22	5.5	B	W	MOD.	MOD.	MOD.	30	Rare (None)	3	150	2.3	3	9.2	45	45	N
Osterout	Osterout	12.2	COS.6	Cont. Corn	Ot	Otego	150	25	5	B	M	MOD.	MOD.	MOD.	10	Occasional	2	75	2	2	9.1	68	68	N
Palmatier 1	Palmatier 1	15	GIT	C2H6	VoC	Volusia	105	18	3.5	C	S	LOW	LOW	HIGH.	20	Rare (None)	6	200	1.3	3	5.4	33	33	Y
Palmatier 2	Palmatier 2	15	COS.1	C2H6	MeB	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	7	200	1.6	3	5.4	10	10	Y
Palmatier 3	Palmatier 3	8	GIT	C2H6	MeB	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	6	250	1.5	3	5.4	6	6	Y
Pier 1	Pier 1	8	COG.6	C3H7	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	8	175	1.6	3	5.4	43	43	Y
Pier 2	Pier 2	10	COS.6	C6H4	MeB	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	50	Rare (None)	4	200	2.4	3	5.4	41	41	Y
Pier 3	Pier 3	7	GIT	C2H6	BfD	Bath	125	21	5	C	W	LOW	LOW	HIGH.	50	Rare (None)	11	200	3	3	5.4	6	6	Y
Prager 1	Prager 1	10.7	GIT	C6H4	BfD	Bath	125	21	5	C	W	LOW	LOW	HIGH.	500	Rare (None)	5	200	3	3	6.6	3	10	Y
Prager 2	Prager 2	11.3	GIT	C3H7	MmC	Mongaup	105	18	4.5	C	W	LOW	LOW	HIGH.	30	Rare (None)	10	150	3	3	6.6	32	32	Y
Prager 3	Prager 3	9.4	GIT	C2H6	LpC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	175	Rare (None)	8	225	2	3	6.6	19	23	Y
Prager 4	Prager 4	10.4	GIT	Grass	MmC	Mongaup	105	18	4.5	C	W	LOW	LOW	HIGH.	500	Rare (None)	12	225	1.1	3	6.6	1	1	Y
Prager 5	Prager 5	8.5	GIT	C6H4	LpC	Lordstown	105	18	4.5	C	W	LOW	LOW	HIGH.	150	Rare (None)	5	200	3	3	6.6	4	5	N
Prager Lfield	Prager Lfield	8.6	GIT	C3H7	MeB	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	75	Rare (None)	6	225	1.6	3	6.6	6	6	N
Rumple 1	Rumple 1	11	AGT.3	C6H4	ChC	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	5	150	2.7	3	14.7	7	7	Y
Rumple 2	Rumple 2	9.1	GIT	C6H4	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	5	150	2.7	3	5.4	38	38	Y
Rumple Flat	Rumple Flat	12.5	Idle	Cont. Corn	Fg	Fluvaquents	90	15	4	C	v	LOW	LOW	HIGH.	10	Frequent	2	100	1.6	3	5.4	3	3	U
Scott 1	Scott 1	32	GIT	C3H7	MeB	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	20	Rare (None)	5	300	1.5	3	5.6	6	6	N
Schmidt 1	Schmidt 1	10.9	COS.4	C3H7	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	30	Rare (None)	8	100	1.6	3	16.6	43	43	Y
Schmidt 2	Schmidt 2	20.7	COS.4	Cont. Corn	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	300	Rare (None)	2	150	2.7	3	10.6	12	10	Y
Schmidt 3	Schmidt 3	11.2	COS.4	C6H4	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	30	Rare	4	125	3.1	3	10.6	38	38	N
Schmidt 4	Schmidt 4	17	COS.4	C3H7	ScA	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	30	Rare (None)	6	125	2	3	10.6	38	38	Y
Schmidt 5	Schmidt 5	7.1	COG.4	C6H4	CnB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	30	Rare (None)	8	100	3.2	3	16.6	38	38	N
Schmidt 6	Schmidt 6	10.5	COG.4	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	30	Rare (None)	3	125	2.5	3	16.6	65	65	Y

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Common ID	Map ID	ACRES	Current Crop	Rotation	Soil Symbol	Soil Type	Corn Bushels	Hay Yield	Crop Yield Pot (t/ac)		Soil Properties & Management						P Index							
									Hydro Code	Drainage	Permeability	Leaching Potential	Runoff Potential	Dist. to water	Flooding	% Slope	Length of Slope	Soil Loss	SMG	NLI	DP	PP	HEL	
Schmidt 7	Schmidt 7	6.5	COG.4	Cont. Corn	Vac	Valois	130	22	5.5	B	W	MOD.	MOD.	MOD.	30	Rare (None)	6	100	3.9	3	10.6	38	38	Y
Solomon 1	Solomon 1	12	COG.3	C6H4	HrB	Howard	135	23	5.5	A	W	HIGH	HIGH	LOW	500	Rare (None)	4	200	2.4	3	18.2	5	12	N
Solomon 2a	Solomon 2a	14	SOY.1	Cont. Corn	HeB	Herkimer	130	22	5.5	B	M	MOD.	MOD.	MOD.	20	Rare (None)	4	200	3.8	3	11.9	10	10	N
Solomon 2b	Solomon 2b	6	SOY.1	Cont. Corn	HeB	Herkimer	130	22	5.5	B	M	MOD.	MOD.	MOD.	20	Rare (None)	4	200	3.8	3	11.9	10	10	N
Solomon 3	Solomon 3	12	COG.5	C6H4	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	20	Rare (None)	5	125	3.8	3	11.9	39	39	N
Solomon 4	Solomon 4	9	COG.3	Cont. Corn	HrB	Howard	135	23	5.5	A	W	HIGH	HIGH	LOW	50	Rare (None)	2	125	1.7	3	18.2	39	39	N
Solomon 5	Solomon 5	6	AGT.3	Cont. Corn	HrB	Howard	135	23	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	3	100	2.3	3	18.2	37	37	N
Solomon 6	Solomon 6	5	COG.3	Grass	HrB	Howard	135	23	5.5	A	W	HIGH	HIGH	LOW	400	Rare (None)	0	0	3	3	18.2	4	11	Y
Solomon 7,8	Solomon 7,8	10.7	COG.1	C6H4	HrB	Howard	135	23	5.5	A	W	HIGH	HIGH	LOW	300	Rare (None)	5	150	2.7	3	18.2	1	2	Y
Solomon 9	Solomon 9	10	AGT.2	C3H7	HrB	Howard	135	23	5.5	A	W	HIGH	HIGH	LOW	500	Rare (None)	7	150	1.7	3	18.2	4	6	Y
Tambasco	Tambasco	19.7	AGE	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	150	Rare (None)	2	100	1.6	3	14.7	48	52	N
Twomey 1&5	Twomey 1&5	50	COS.8	C6H4	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	125	Rare (None)	4	100	2.9	3	9.1	96	95	N
Twomey 2	Twomey 2	14.4	CC.1	Cont. Corn	ChA	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	2	100	1.6	3	14.7	98	98	N
Twomey 3	Twomey 3	6	AGT.2	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	1	200	1	3	14.7	56	56	N
Twomey 4	Twomey 4	12	AGT.2	Cont. Corn	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	3	100	2.3	3	14.7	60	60	N
Twomey 6	Twomey 6	6	AGT.2	Cont. Corn	ScB	Scio	140	24	5	B	M	MOD.	MOD.	MOD.	50	Rare (None)	3	100	3.5	3	9.1	57	57	N
Twomey 7	Twomey 7	8.4	AGT.8	C6H4	ChB	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	5	300	3.4	3	14.7	7	7	Y
Woodbull	Woodbull	12	AGT.4	Cont. Corn	ChC	Chenango	130	22	5.5	A	W	HIGH	HIGH	LOW	20	Rare (None)	4	125	3.2	3	14.7	73	73	N
Young 1	Young 1	17.2	CC.1	C2H6	MeC	Mardin	120	20	4.5	C	M	LOW	LOW	HIGH.	50	Rare (None)	10	275	3	3	5.4	6	6	Y
Young 2	Young 2	13.2	COG.8	C6H4	BfC	Bath	125	21	5	C	W	LOW	LOW	HIGH.	100	Rare (None)	4	200	2.3	3	5.4	44	49	Y
VTA	VTA	0	GIT	Cont. Hay	Dflt	Default	0	0	0	B	M	MOD.	MOD.	MOD.	500	Rare (None)	0	0	0	5	10.6	8	0	N

AGE = Alfalfa Grass Establishment

AGT.x = Alfalfa Grass Topdress yrs after establishment

COS x = Year of Corn Silage

SB = Soybeans

GRE = Grass Establishment

GRT = Grass Tondress 2 cut

P= Poorly Drained

S=Somewhat Poorly Drained

M=Moderately Drained

Table 1 Field Information

Common ID	Map ID	ACRES	Current Crop	Rotation	SOIL SYMBOL	SOIL TYPE	CORN Bushels	CROP YIELD POT (T/AC)	HAY YIELD	HYDRO CODE	DRAINAGE	PERMEABILITY	LEACHING POTENTIAL	RUNOFF POTENTIAL	Dist. to water	Flooding	% SLOPE	LENGTH OF SLOPE	SOIL LOSS	SMG	NLI	P Index
1936.8 Total Acres																						
COG.x = Years of Corn Grain PNT = Pasture CC= Cereal Crop																						
GIT = Grass Intensive Topdress 3 cut+ x.8 = Continuously PP=Particulate P DP=Dissolved P																						
W=Well Drained E=Excessively Drained V=Very Poorly Drained																						

APPENDIX 1. THE NITROGEN LEACHING INDEX (NLI)

An LI below 2 indicates that the potential for nitrate leaching below the root zone is low. An LI greater than 10 inches indicates that the potential for soluble nutrient leaching below the root zone is large while LI's between 2 and 10 are considered intermediate. In order to meet the N leaching requirements of the NRCS nutrient management standard (590), producers are expected to *implement* best management practices if the LI score for a field is high (>10). Producers are expected to *consider* the same practices on a case-by-case basis if the LI score for a field is intermediate (2-10). Best management practices recommended for soils with medium to high N leaching indices include those listed below. These recommendations are based on research done, among others, by Sogbedji and coworkers (2000) and Van Es and coworkers (2002).

- Unless the New York Phosphorus Index identifies the need for P based fertility management, manure and fertilizer application rates should be based on Cornell guidelines for meeting crop N needs.
- For corn, pre-plant (other than starter fertilizer) and early post plant *broadcast* applications of commercial nitrogen without the use of nitrification inhibitors are not recommended.
- Sidedress applications should be made after the corn has at least four true leaves.
- If starter N must be broadcast (e.g., for small grains or new seedlings of grass), apply fertilizer as close to expected planting date as possible (ideally within 3 days or less).
- For row and cereal crops, including corn, maintain starter fertilizer N rates below 50 lbs/acre actual N under normal conditions.
- Manure and fertilizer applications should be adjusted based on information provided in this document.
- Evaluate the need for sidedress N applications based on PSNT or other soil nitrate nitrogen tests.
- Sod crops should not be incorporated in the fall. Chemical sod killing may be carried out when the soil temperature at four-inch depth is approaching 45°F. Depending on location, this will not likely take place until early October.
- Minimize fall and/or winter manure application on good grass and/or legume sod fields that are to be rotated the following spring.
- Appropriate ammonia conservation is encouraged. Losses can either be reduced by immediately incorporating manure or eliminated by directly injecting manure as a sidedress application to growing crops.
- Plant winter hardy cover crops whenever possible, especially when fall manure is applied (e.g., rye, winter wheat, or interseed ryegrass in summer).
- Manure may be applied in the fall where there is a growing crop. Judicious amounts of manure can be applied to or in conjunction with perennial crops or winter hardy cover crops. Applications should generally not exceed the greater of 50 lbs/acre of first year available N or 50% of the expected N requirement of next year's crop.

Nitrogen Guidelines for Field Crops in New York. Second Release. June 22, 2003.

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- Frost incorporation/injection is acceptable when soil conditions are suitable, but winter applications should be made in accordance with the New York Phosphorus Index.
- Manure N application on legumes is acceptable to satisfy agronomic requirements when legumes represent less than 50% of the stand. When legumes represent more than 50% of the stand, manure may be applied at a rate not exceeding 150 lbs of available N/acre.

Information taken from the following website:

<http://nmsp.css.cornell.edu/publications/articles/extension/Ndoc2003.pdf> Refer to for the complete guide.

APPENDIX 2. P INDEX

The NY P Index is separated into two main components: potential sources of P (“source factors”) and the potential movement of P (“transport factors”). The P source factor is determined based on soil P test values and an array of nutrient application and management factors. The value of the P source factor can be any positive number and typically reflects the pounds P/acre in the agronomic soil test plus the P₂O₅ equivalent of any nutrients applied. The range in the P source factor value will generally be from 0 to 150, although higher values are encountered.

The P transport factor is divided into separate components to arrive at a dissolved P (DP) transport factor and a particulate P (PP) transport factor. Both the dissolved P and the particulate P transport factors are scaled in the NY P Index so that the values range from 0.1 to 1.0 (a low transport capacity to a maximum transport potential). Thus, two different risk scores need to be determined for the site being evaluated.

The dissolved P Index score is calculated with Equation [1] and is primarily used to address the risk of water-soluble P loss from a field that occurs as a result of the runoff associated with saturated soil conditions (“saturation-excess”):

$$\text{Dissolved P Index} = \text{P Source Factor} \times \text{Dissolved P Transport Factor} \quad [1]$$

The particulate P Index score is determined with Equation [2] and reflects the risk of P loss that occurs when rainfall intensity exceeds a soils infiltration capacity causing the erosion of soil and/or manure particles (“infiltration excess”):

$$\text{Particulate P Index} = \text{P Source Factor} \times \text{Particulate P Transport Factor} \quad [2]$$

Box 1: Factor proposed for inclusion in the P runoff index:

- Saturated areas and flooding frequency (Walter and coworkers, 1995).
- Distance to waterbody and vegetation grazing management (McFarland and coworkers, 1998).
- Degree of soil P saturation (Bolinder and coworkers, 1998).
- Soil reactive aluminum (Jokela, 2000).

NY P Runoff Index - Documentation and User's Manual. First Edition. 7/8/2003.

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Table 1 shows the site vulnerability risk category associated with the score and the general nutrient management expectations for that risk category. Although both the dissolved P and the particulate P Index scores need to be assessed and reported in CNMPs, management recommendations using Table 1 are based on the higher of the two scores. When the higher score exceeds 74, further applications of P begin to be restricted (see Appendix A for a list of crop P concentrations for calculations of P removal). Note in Table 1 that when scores exceed 100, no additional P nutrient applications are allowed. If risk scores exceed 74, one should review the variables in the P Index calculation to determine which variables are adding significantly to the score. Making minor management changes, implementing appropriate conservation practices, or altering field boundaries will often result in a lower risk score and additional flexibility in nutrient applications. Of course, particular knowledge about a field and experience with farming the field may indicate a need to treat a field more strictly than the NY P Index requires. It is possible in some situations that the NY P Index may underestimate runoff risk. If common sense dictates, planners should implement more conservative practices.

Table 1: NY-PI scores, site vulnerability category, and nutrient management implications.

Ranking Value	Site Vulnerability	Management
50	Low	N Based management
50 – 74	Medium	N based management with BMPs
75 – 99	High	P applications limited to crop removal*
= 100	Very High	No P ₂ O ₅ fertilizer or manure application

* See Appendix A for crop P concentrations for P removal calculations.

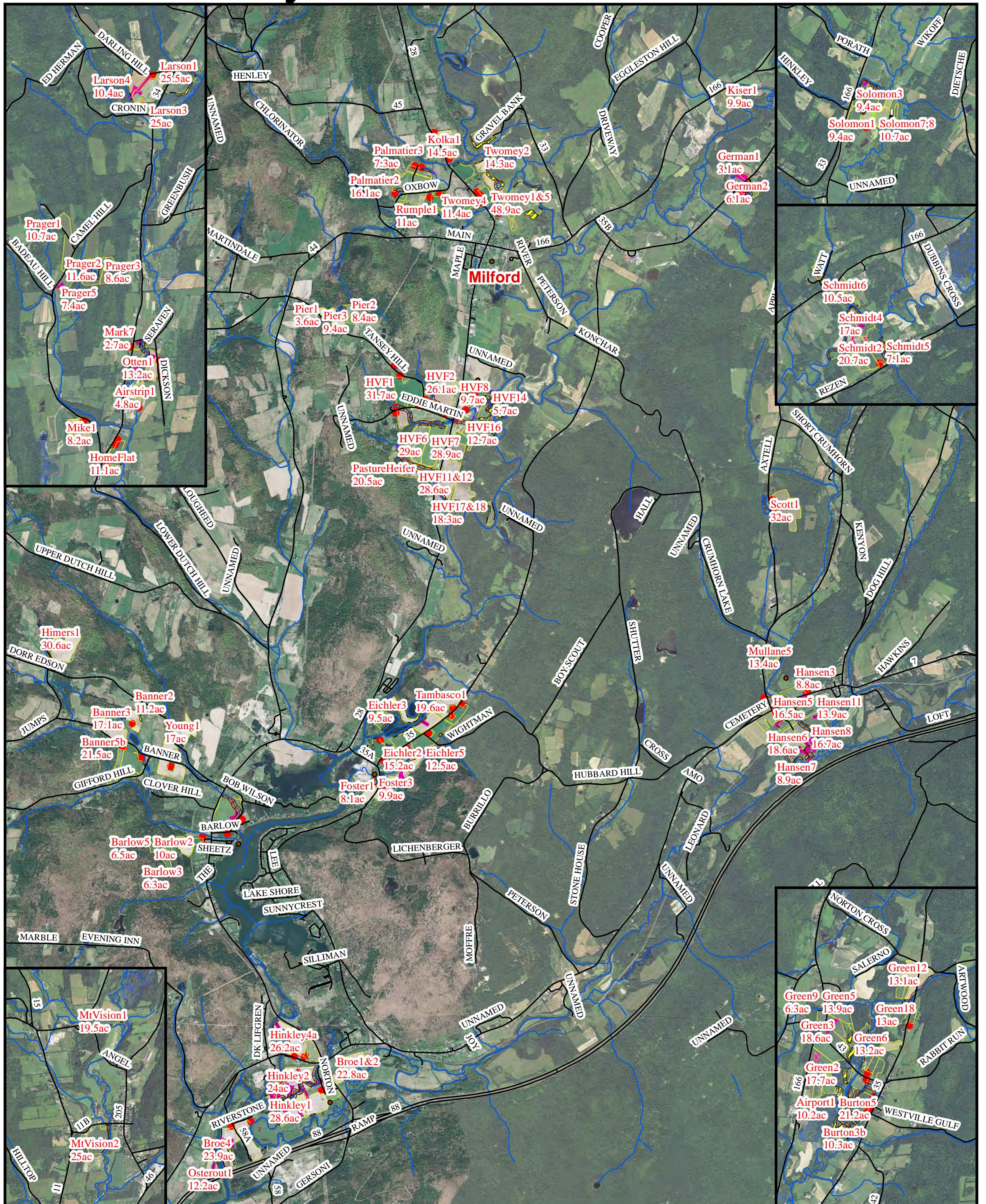
Information taken from the following website:

http://nmsp.css.cornell.edu/publications/Pindex/PI_User_Manual.pdf Refer to for the complete guide.

- ii. The **field assessment** section includes **maps** of the Tracts included in the plan highlighting setbacks, wells, and BMP's for controlling erosion. Additional maps for documentation purposes are, topographic maps and soil survey maps. Fields have been assessed for slope and slope length, as well as, other erosion concerns. Refer to Cropland BMP's in the next section to determine the recommended practice.

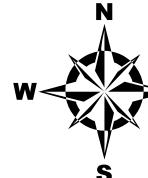
Setback maps have been provided and include Mt Vision. Mt Vision soils and topographic included.

Hemlock Valley Farm



Spreading Setbacks (Refer to Manure Timing and Rates)

- +Do not spread within No Spread Zone areas unless you can verify 100 ft to a Perennial or intermittent stream and/or wetlands, have an NRCS 35ft buffer strip, or incorporate within 24hrs of application. A 15ft setback is required if incorporated.
- +Do not spread within 100ft of an open tile line intake structure, sinkhole, well or wellhead, or other down-gradient direct conduits to surface or ground water.
- + Do not spread within 20ft of a concentrated flow if a rain event is expected within the next 36 Hours unless incorporation is possible.



2.3.2012

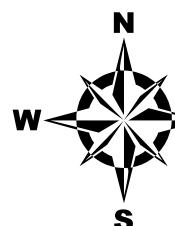
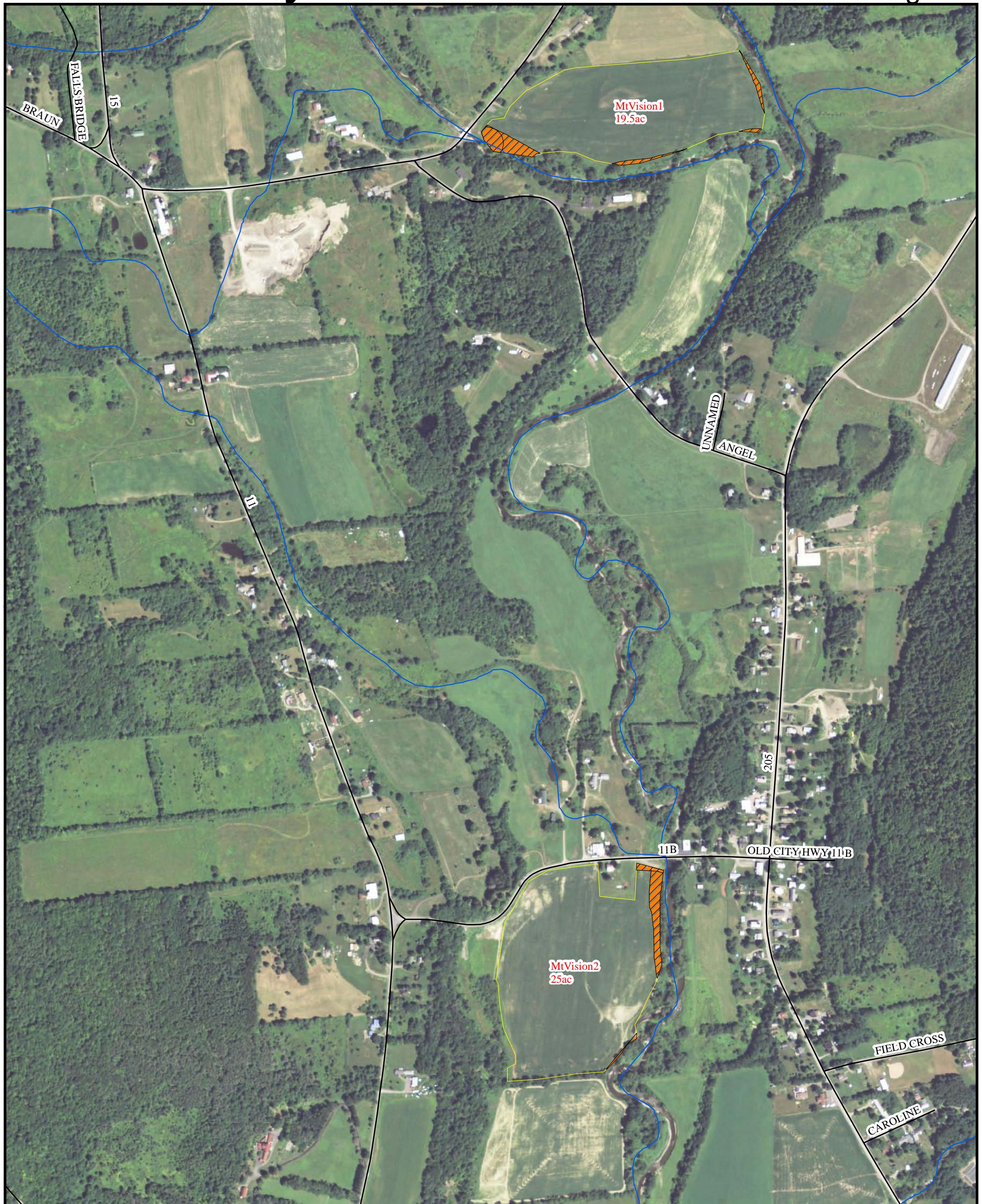
Legend

- The legend includes the following entries:

 - HVF_wells**: Red dot
 - Otsego_County_Waterways**: Blue line
 - Jahnke2012fields**: Yellow rectangle
 - Wetland_NoSpreadZone**: Yellow rectangle with black diagonal hatching
 - NoSpreadZone2012**: Orange rectangle with black diagonal hatching
 - Conc. Fl.ow_20ft Setback**: Magenta arrow pointing right
 - Diversion_20FT Setback**: Blue line
 - Grass Waterway**: Green dashed line
 - Intermittent_20ft Setback**: Magenta dashed line
 - Riparian Buffer**: Black and white horizontal stripes
 - Sink Hole**: Magenta double line
 - StreetSegmentPublic**: Black line

Hemlock Valley Farm

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Spreading Setbacks (Refer to Manure Timing and Rates)

- + Do not spread within No Spread Zone areas unless you can verify 100 ft to a Perennial or intermittent stream and/or wetlands, have an NRCS 35ft buffer strip, or incorporate within 24hrs of application. A 15ft setback is required if incorporated.
- + Do not spread within 100ft of an open tile line intake structure, sinkhole, well or wellhead, or other down-gradient direct conduits to surface or ground water.
- + Do not spread within 20ft of a concentrated flow if a rain event is expected within the next 36 Hours unless incorporation is possible.



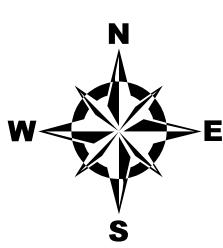
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Legend

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| | HVF_wells |
| | Otsego_County_Waterways |
| | Jahneke2012fields |
| | Wetland_NoSpreadZone |
| | NoSpreadZone2012 |
| | Wetlands |
| | |

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0 625 1,250 2,500
Feet

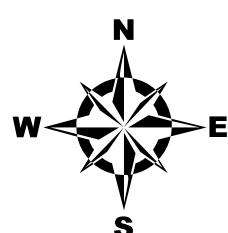
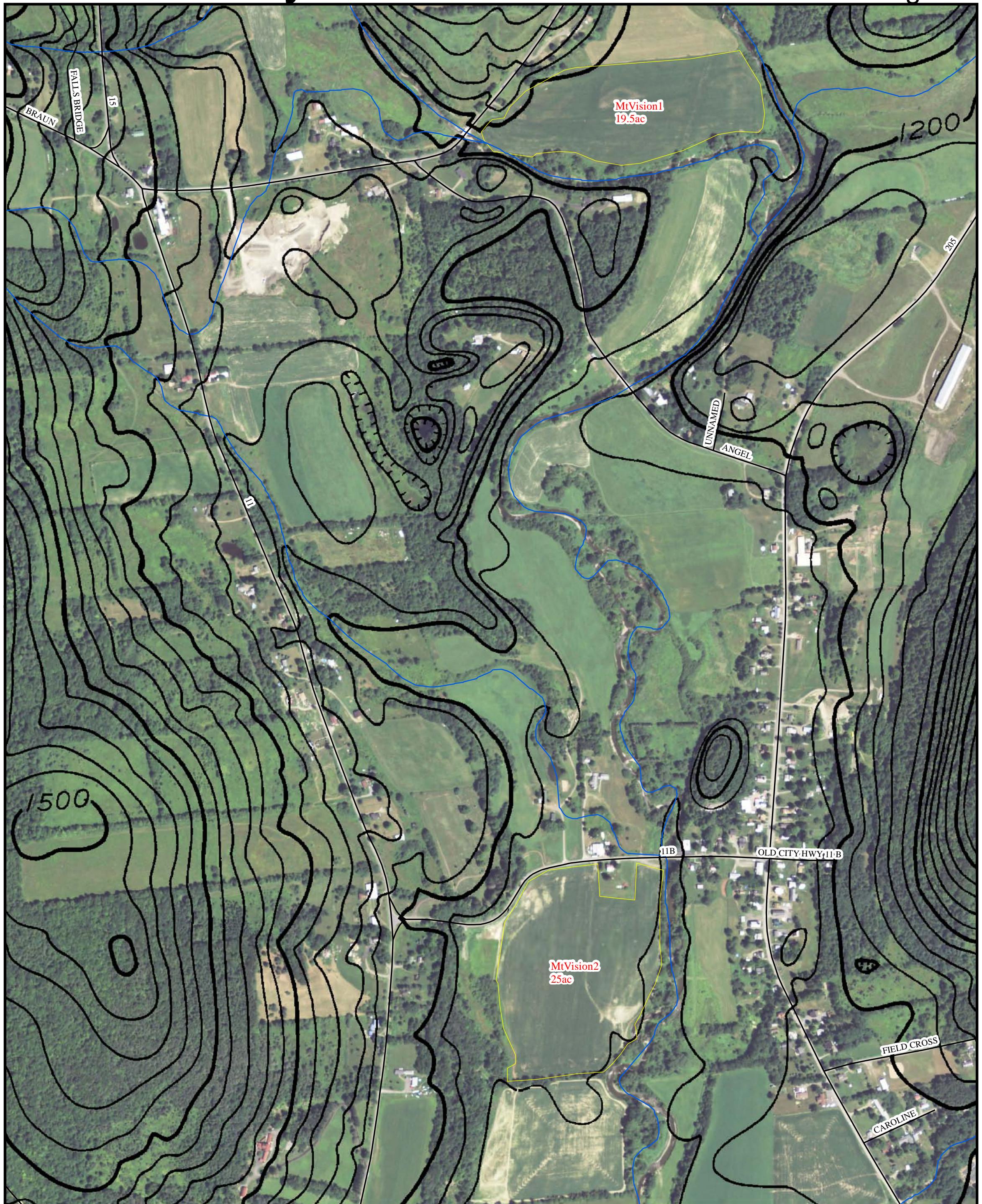


Legend

- StreetSegmentPublic
- Otsego_County_Waterways
- Jahnke2012fields
- Otsego County Soils

Hemlock Valley Farm

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0 625 1,250 2,500
Feet



Legend

- StreetSegmentPublic
- Otsego_County_Waterways
- Jahnke2012fields

- iii. **Cropland BMP's** (Appendix 3) list the recommended best management practices (BMP) required to reduce environmental risks for new fields. Use this list when referencing the field maps in the Field Assessment section.

Appendix 3. Cropland BMP's

FIELD ID	CONCERN	RECOMMENDED PRACTICE

Fields with Bedrock Close to Surface

Common ID	ACRES	Current Crop	SOIL TYPE	Distance to Bedrock
D KNAPP airstrip	4	GIT	Lordstown	<20"
LARSON 4	10.3	GIT	Lordstown	<20"
MIKE 1	5.7	GIT	Lordstown	<20"
MIKE 2	6	GIT	Lordstown	<20"
MIKE 3	4.2	GIT	Lordstown	<20"
PRAGER 3	9.4	GIT	Lordstown	<20"
PRAGER 5	8.5	GIT	Lordstown	<20"

48.1

Managing fields close to bedrock.

Soils less 40" to bedrock

The following practices should be applied to soils less than 40 inches deep over limestone where appropriate:

- Generally limit liquid manure application rate to 10,000 gallons/A/year or less, depending on nutrient content and crop requirement.
- Do not spread manure within 100 feet of any well or spring.
- Manure should not be applied to lands that drain to a sinkhole or closed depression, unless it can be incorporated before the next rainfall or snowfall. Special care is needed when soils are frozen, unless injected or immediately incorporated through "frost tillage".
- When applying liquid manure to living sod, consider adopting methods of shallow incorporation or injection to break up soil pores and reduce runoff and leaching potential.
- For annual crops, incorporate manure (especially liquid manure) whenever possible to mix with soil and reduce the potential for runoff and leaching through preferential flow. Consider fate of conserved ammonia-N.
- When rotating sod to annual crops, do not kill sod in the fall by tillage. Fall chemical sod kill should be delayed as long as possible. Delaying sod kill until spring may require changes in weed control programs.
- Fall applied manure should be limited or eliminated.
- Adopt other N conservation practices such as cover crops.

Soils less than 20" to bedrock.

The following practices should be applied to soils shallow or very shallow over sedimentary bedrock:

- Generally limit manure application rate to 10,000 gallons/A/year or less, depending on nutrient content and crop requirement. Little or no manure should be applied to sod in the fall, winter or spring before it is to be rotated to corn
- Do not spread manure within 100 feet of any well or spring.
- When rotating sod to annual crops, do not kill sod in the fall by tillage. Fall chemical sod kill should be delayed as long as possible. Delaying sod kill until spring may require changes in weed control programs.
- Fall applied manure should be limited or eliminated.
- Adopt other N conservation practices such as cover crops.
- Carefully evaluate and implement the NLI risk score and N management recommendations.
- Monitor and improve the uniformity of manure spreading equipment and practices.

Additional considerations:

- When new land is acquired, talk to previous operators, if available, about abandoned wells, shallow bedrock, sinkholes or places where water disappears into the ground.
- Meet owners of adjacent properties before spreading manure at new sites, explain manure management practices and ask about well types and locations so that pro-active steps can be taken to reduce groundwater contamination risk.
- Keep manure application rates low at first when spreading at a location that is new to the operation and/or has had little or no recent manure history. Protecting groundwater may demand improved manure management and additional farm resources in the coming years. These guidelines should be a good start toward reducing farm business risk associated with the potential for contaminating a drinking water well.

Excerpts from, “Manure and groundwater: the Case for Protective Measures and Supporting Guidelines.” May 2004.

- iv. **Rotational information** is included for fields that are new to the plan. Based on field assessments for the new tracts of land sheet erosion has been minimized by managing crop rotations and tillage practices. Refer to **Table 2, RUSLE2-Soil Loss**, or calculated soil losses. The objective is to at least meet T, the tolerable soil loss value as determined by USDA NRCS.

FIELD ID	ROTATION
Airport 1	10
Airstrip	4
Banner 2	11.2
Barlow Flat	39.1
Broe 1&2	22.8
Broe 3	21
Broe 4	26
Broe 6	10.2
Broe 7	16
Broe 10	22.3
Burton 1	9.9
Burton 2	4
Burton 3a	6
Burton 3b	9
Burton 4	8
Burton 5	21.2
Denny 1	11
Denny 2	12.2
Denny 3	7.9
Eggleston 1	15
Eichler 1	4.9
Eichler 4	10.7
Eichler 5	11.9
Eichler 6	6.2
Foster 1	8.1
Foster 2	6.7
German 1	3.1

Green 1	19.6
Green 2	15.8
Green 3	16
Green 4	13.9
Green 6	17
Green 7	3.5
Green 8	6.1
Green 9	5.7
Green 10	10
Green 11	6.9
Green 12	13.1
Green 13	4.5
Green 14	7
Green 15	6.6
Green 16	6.3
Green 17	8
Green 18	13.5
Green 19	2.7
Green 20	4.4
Green 21	3.9
Hansen 1	4.5
Hansen 2	8.7
Hansen 3	8.6
Hansen 4	6.4
Hansen 5	16.5
Hansen 6	20
Hansen 7	12
Hansen 8	15
Hansen 11	14
Hansen 12	8.4
Hinkley 1	28.6
Hinkley 2	25
Hinkley 2a	7

Hinkley 3	11.5
Hinkley 4a	26.2
Hinkley 5	3.1
Hinkley barnyard	3.8
Home Flat	12.5
HVF 3	7.3
HVF 4	8.5
HVF 5	16.9
HVF 9	2.1
HVF 10	5.9
HVF 11&12	28.6
HVF 13	5
HVF 14	6.3
HVF 15	9.5
HVF 16	12.5
HVF 17&18	18.7
HVF 19	6.2
Kiser 1	10
Mark 6	2
Mark 7	3.4
Mark Flat	10
Otten	12
Martindale	8.2
Mt. Vision 1	19.5
Mt. Vision 2	24.9
Mullane	15.8
Osterout	12.2
Rumple Flat	12.5
Schmidt 2	20.7
Schmidt 6	10.5
Schmidt 7	6.5
Solomon 2a	14
Solomon 2b	6

Solomon 4	9	
Solomon 5	6	
Tambasco	19.7	
Twomey 2	14.4	
Twomey 3	6	
Twomey 4	12	
Twomey 6	6	
Woodbull	12	
Banner 6	4.8	C6H4- This rotation is based on six years corn silage with smart tillage and four years hay with the first year being spring chiseled.
Barlow 5	6	
Eichler 2	14.9	
German 2	6.1	
German 3	2.9	
Green 5	15.4	
Hinkley 4b	10.8	
HVF 6	32	
Larson 1	25.6	
Pier 2	10	
Prager 1	10.7	
Prager 5	8.5	
Rumple 1	11	
Rumple 2	9.1	
Schmidt 3	11.2	
Schmidt 5	7.1	
Solomon 1	12	
Solomon 3	12	
Solomon 7,8	10.7	
Twomey 1&5	50	
Twomey 7	8.4	
Young 2	13.2	
Banner 3	17.1	C3H7- This rotation is based on three years corn silage with smart till and seven years of hay with the first year being spring chiseled.

HVF 7	32	
HVF 8	10	
Kolka	15.7	
Larson 3	28.7	
Larson 4	10.3	
Mike 1	5.7	
Pier 1	8	
Prager 2	11.3	
Prager Lfield	8.6	
Scott 1	32	
Schmidt 1	10.9	
Schmidt 4	17	
Solomon 9	10	
<hr/>		
Banner 5b	18.3	Corn Silage 2 Hay 6
Eichler 3	10.6	Spring chisel. Seeding with companion crop.
Foster 3	9.8	
HVF 2	26.1	
Larson 2	5.6	
Palmatier 1	15	
Palmatier 2	15	
Palmatier 3	8	
Pier 3	7	
Prager 3	9.4	

Young 1	17.2	
Banner 5a	5.2	Grass- These fields can maintain no corn within the rotation and should be kept strictly grass.
Banner 7	4.1	Notes: Old rotations did allow some of these fields to have corn within the rotation.
Banner 9	11	
Barlow 1	3	
Barlow 2	9	
Barlow 3	6	
Barlow 4	5	
Himers	30.6	
HVF 1	30.1	
Mike 2	6	
Mike 3	4.2	
Prager 4	10.4	
Solomon 6	5	

This conservation plan (328) is designed to allow the greatest amount of years corn possible without exceeding the tolerable soil loss as defined by the Revised Universal Soil Loss Equation (RUSLE) and the CAFO standards. C-Factors were based on fall kill sod followed by spring plowing.

If desired you can plant more years of hay, you can put a cover crop down for all years on corn, and/or you can plant all corn to no till/strip till (329a) every year.

It is recommended that you scout (595) no till plantings for Army worm the sod year and every year that a cover crop was planted. Cover crop can be winter wheat, winter rye or winter triticale. You may use oats the year prior to seeding as a cover that will dye with the winter snow/frost leaving less surface trash to plant through in the spring.

Cover crops (340) will help suck up moisture on wet fields to possibly allow earlier plantings. Cover crop can be harvested for feed or utilized to increase soil tilth through the addition of organic matter. Do not let cover crops get out of control, too much surface trash can make planting difficult.

Strip cropping (585) has been recommended in some instances to further reduce erosion. The fields where strips are recommended are found on the Cropland BMP's sheet.

Note: Each number in parenthesis refers to an NRCS standard.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Airport, Banner (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Airport	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	100	2.0
Banner 2	Otsego Co\BfB Bath channery silt loam, 3 to 8 percent slopes\Bath channery silt loam 80%	3.0	150	2.0
Banner 3	Otsego Co\BfB Bath channery silt loam, 3 to 8 percent slopes\Bath channery silt loam 80%	3.0	200	10
Banner 5a	Otsego Co\BfB Bath channery silt loam, 3 to 8 percent slopes\Bath channery silt loam 80%	3.0	230	14
Banner 5b	Otsego Co\BfB Bath channery silt loam, 3 to 8 percent slopes\Bath channery silt loam 80%	3.0	230	12
Banner 6	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	180	6.0
Banner 7	Otsego Co\BfB Bath channery silt loam, 3 to 8 percent slopes\Bath channery silt loam 80%	3.0	180	16
Banner 9	Otsego Co\BfB Bath channery silt loam, 3 to 8 percent slopes\Bath channery silt loam 80%	3.0	180	16

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Airport	Cont_Cs_spIM-spc	1.6	1.6	-0.090	100
Banner 2	Cont_Cs_spIM-spc	1.7	1.7	-0.10	100
Banner 3	Cont_Cs_spIM-spc	10	10	-0.79	100
Banner 3	Corn 6 Hay 4	6.1	6.1	-0.14	72
Banner 3	Corn 3 Hay 7	2.8	2.8	0.50	42
Banner 5a	Cont_Cs_spIM-spc	18	18	-1.4	100
Banner 5a	Corn 6 Hay 4	11	11	-0.49	72

Banner 5a	Corn 3 Hay 7	4.9	4.9	0.34	42
Banner 5a	Corn 3 Hay 7	1.2	1.2	0.75	22
Banner 5b	Cont_Cs_splM-spc	15	15	-1.1	100
Banner 5b	Corn 6 Hay 4	8.4	8.4	-0.32	72
Banner 5b	Corn 3 Hay 7	3.9	3.9	0.41	42
Banner 5b	Corn 2 Hay 6	3.0	3.0	0.52	40
Banner 6	Cont_Cs_splM-spc	5.4	5.4	-0.39	100
Banner 6	Corn 6 Hay 4	3.1	3.1	0.096	72
Banner 6	Corn 3 Hay 7	1.5	1.5	0.61	42
Banner 6	Corn 2 Hay 6	1.2	1.2	0.66	40
Banner 7	Cont_Cs_splM-spc	17	17	-1.3	100
Banner 7	Corn 6 Hay 4	10	10	-0.45	72
Banner 7	Corn 3 Hay 7	4.7	4.7	0.35	42
Banner 7	Corn 2 Hay 6	3.8	3.8	0.46	40
Banner 7	Cont GRT	1.2	1.2	0.75	22
Banner 9	Cont GRT	1.2	1.2	0.75	22

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Airstrip,Denny,Eggleston,Eichler (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Airstrip	Otsego Co\LfC Lewbath channery silt loam, 8 to 15 percent slopes\Lewbath channery silt loam 80%	3.0	100	1.0
Denny 1	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	75	3.0
Denny 2	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	50	2.0
Denny 3	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	75	5.0
Eggleston 1	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	180	4.0
Eichler 1	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	50	2.0
Eichler 2	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	100	5.0
Eichler 3	Otsego Co\ChC Chenango gravelly silt loam, 8 to 15 percent slopes\Chenango gravelly silt loam 85%	3.0	180	12
Eichler 4	Otsego Co\ChC Chenango gravelly silt loam, 8 to 15 percent slopes\Chenango gravelly silt loam 85%	3.0	150	4.0
Eichler 5	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	2.0
Eichler 6	Otsego Co\CfB Castile channery silt loam, 3 to 8 percent slopes\Castile channery silt loam 85%	4.0	180	3.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Airstrip	Cont_Cs_spIM-spc	0.92	0.92	-0.038	100
Denny 1	Cont Corn	2.1	2.1	-0.13	100
Denny 2	Cont Corn	1.0	1.0	0.14	100
Denny 3	Cont_Cs_spIM-spc	2.8	2.8	-0.19	100
Eggleson 1	Cont_Cs_spIM-spc	3.1	3.1	-0.21	100
Eichler 1	Cont_Cs_spIM-spc	1.4	1.4	-0.075	100
Eichler 2	Cont_Cs_spIM-spc	3.7	3.7	-0.26	100
Eichler 2	Corn 6 Hay 4	2.3	2.3	0.16	72
Eichler 3	Cont_Cs_spIM-spc	14	14	-1.0	100
Eichler 3	Corn 2 Hay 6	3.2	3.2	0.50	40
Eichler 4	Cont_Cs_spIM-spc	3.0	3.0	-0.20	100
Eichler 5	Cont_Cs_spIM-spc	1.6	1.6	-0.093	100
Eichler 6	Cont_Cs_spIM-spc	2.7	2.7	-0.18	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.



Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Barlow (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Barlow 1	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	200	12
Barlow 2	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	200	12
Barlow 3	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	200	12
Barlow 4	Otsego Co\BfD Bath channery silt loam, 15 to 25 percent slopes\Bath channery silt loam 75%	3.0	180	20
Barlow 5	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	300	5.0
Barlow Flats	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	50	3.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Barlow 1	Cont_Cs_spIM-spc	15	15	-1.1	100
Barlow 1	Corn 6 Hay 4	8.9	8.9	-0.36	72
Barlow 1	Corn 3 Hay 7	4.2	4.2	0.40	42
Barlow 1	Corn 2 Hay 6	3.4	3.4	0.49	40
Barlow 1	Cont GRT	1.0	1.0	0.76	22
Barlow 2	Cont GRT	1.0	1.0	0.76	22
Barlow 3	Cont GRT	1.0	1.0	0.76	22
Barlow 4	Cont_Cs_spIM-spc	27	27	-2.1	100

Barlow 4	Corn 6 Hay 4	16	16	-0.91	72
Barlow 4	Corn 3 Hay 7	7.3	7.3	0.15	42
Barlow 4	Corn 3 Hay 7	1.7	1.7	0.71	22
Barlow 5	Cont_Cs_spIM-spc	5.6	5.6	-0.40	100
Barlow 5	Corn 6 Hay 4	2.7	2.7	0.13	72
Barlow 5	Corn 3 Hay 7	1.6	1.6	0.60	42
Barlow 5	Corn 2 Hay 6	1.3	1.3	0.65	40
Barlow Flats	Cont_Cs_spIM-spc	1.6	1.6	-0.094	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Broe (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Broe 1&2	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	2.0
Broe 3	Otsego Co\Hb Hamplain silt loam\Hamplain silt loam 75%	5.0	180	8.0
Broe 4	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	50	2.0
Broe 6	Otsego Co\Hb Hamplain silt loam\Hamplain silt loam 75%	5.0	150	4.0
Broe 7	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	2.0
Broe 10	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	50	2.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Broe 1&2	Cont_Cs_spIM-spc	2.0	2.0	-0.12	100
Broe 3	Cont Corn	11	11	-0.79	100
Broe 3	Corn 6 Hay 4	6.5	6.5	-0.17	72
Broe 3	Corn 3 Hay 7	2.8	2.8	0.49	44
Broe 4	Cont Cs. spIM_spc	1.6	1.6	0.10	100
Broe 6	Cont_Cs_spIM-spc	4.7	4.7	-0.34	100
Broe 6	Corn 6 Hay 4	2.9	2.9	0.11	72
Broe 6	Corn 3 Hay 7	1.4	1.4	0.61	42
Broe 6	Corn 3 Hay 7	0.38	0.38	0.82	22
Broe 7	Cont_Cs_spIM-spc	1.7	1.7	-0.10	100
Broe 10	Cont_Cs_spIM-spc	1.2	1.2	-0.060	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Burton (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Burton 1	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	200	1.0
Burton 2	Otsego Co\Wb Wakeville silt loam\Wakeville silt loam 75%	5.0	50	2.0
Burton 3a	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	75	2.0
Burton 3b	Otsego Co\Wg Wayland silt loam\Wayland silt loam 75%	5.0	110	1.0
Burton 4	Otsego Co\Wb Wakeville silt loam\Wakeville silt loam 75%	5.0	50	2.0
Burton 5	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	100	3.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Burton 1	Cont_Cs_spIM-spc	1.0	1.0	-0.045	100
Burton 2	Cont Corn	1.7	1.7	-0.79	100
Burton 3a	Cont Corn	1.4	1.4	0.11	100
Burton 3b	Cont_Cs_spIM-spc	1.2	1.2	-0.062	100
Burton 4	Cont_Cs_spIM-spc	1.7	1.7	-0.10	100
Burton 5	Cont_Cs_spIM-spc	2.3	2.3	-0.15	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Foster, German (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Foster 1	Otsego Co\VaB Valois gravelly loam, 3 to 8 percent slopes\Valois gravelly loam 85%	4.0	150	3.0
Foster 2	Otsego Co\VaC Valois gravelly loam, 8 to 15 percent slopes\Valois gravelly loam 85%	4.0	100	4.0
Foster 3	Otsego Co\VaD Valois gravelly loam, 15 to 25 percent slopes\Valois gravelly loam 85%	4.0	150	18
German 1	Otsego Co\VoB Volusia silt loam, 3 to 8 percent slopes\Volusia silt loam 80%	2.0	100	3.0
German 2	Otsego Co\Cp Chippewa and Norwich soils\Norwich silt loam 35%	2.0	200	5.0
German 3	Otsego Co\Cp Chippewa and Norwich soils\Norwich silt loam 35%	2.0	100	5.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Foster 1	Cont_Cs_spIM-spc	2.3	2.3	-0.14	100
Foster 2	Cont Corn	2.6	2.6	-0.17	100
Foster 3	Cont Corn	13	13	-0.82	100
Foster 3	Corn 2 Hay 6	4.4	4.4	0.41	40
German 1	Cont_Cs_spIM-spc	2.0	2.0	-0.12	100
German 2	Cont_Cs_spIM-spc	3.9	3.9	-0.27	100
German 2	Corn 6 Hay 4	2.3	2.3	0.16	72
German 3	Cont_Cs_spIM-spc	3.1	3.1	-0.21	100
German 3	Corn 6 Hay 4	1.8	1.8	0.20	72

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Green (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Green 1	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	150	3.0
Green 2	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	150	3.0
Green 3	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	3.0
Green 4	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	5.0
Green 5	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	4.0
Green 6	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	150	3.0
Green 7	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	100	2.0
Green 8	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	75	3.0
Green 9	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	150	3.0
Green 10	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	200	2.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Green 1	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100
Green 2	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100
Green 3	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100

Green 4	Cont_Cs_spIM-spc	3.2	3.2	-0.22	100
Green 5	Cont Corn	3.4	3.4	-0.24	100
Green 5	Corn 6 Hay 4	2.1	2.1	0.17	72
Green 6	Cont Corn	2.8	2.8	-0.00040	100
Green 7	Cont_Cs_spIM-spc	1.8	1.8	-0.11	100
Green 8	Cont_Cs_spIM-spc	2.8	2.8	-0.18	100
Green 9	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100
Green 10	Cont_Cs_spIM-spc	1.9	1.9	-0.11	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Green11-20 (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Green 11	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	2.0
Green 12	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	3.0
Green 13	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	2.0
Green 14	Otsego Co\UnA Unadilla silt loam, 0 to 2 percent slopes\Unadilla silt loam 80%	4.0	150	2.0
Green 15	Otsego Co\UnA Unadilla silt loam, 0 to 2 percent slopes\Unadilla silt loam 80%	4.0	150	2.0
Green 16	Otsego Co\UnA Unadilla silt loam, 0 to 2 percent slopes\Unadilla silt loam 80%	4.0	75	4.0
Green 17	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	100	3.0
Green 18	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	200	1.0
Green 19	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	100	1.0
Green 20	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	50	3.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Green 11	Cont_Cs_spIM-spc	1.8	1.8	-0.10	100
Green 12	Cont_Cs_spIM-spc	2.3	2.3	-0.15	100
Green 13	Cont_Cs_spIM-spc	1.6	1.6	-0.093	100
Green 14	Cont_Cs_spIM-spc	2.7	2.7	-0.18	100
Green 15	Cont Corn	2.7	2.7	-0.18	100

Green 16	Cont Corn	2.9	2.9	-0.0082	100
Green 17	Cont_Cs_spIM-spc	2.0	2.0	-0.12	100
Green 18	Cont_Cs_spIM-spc	0.88	0.88	-0.035	100
Green 19	Cont_Cs_spIM-spc	1.4	1.4	-0.076	100
Green 20	Cont_Cs_spIM-spc	2.9	2.9	-0.19	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Hansen (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Hansen 1	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	50	1.0
Hansen 2	Otsego Co\TIB Trestle-Deposit complex, 1 to 4 percent slopes\Trestle gravelly silt loam 50%	4.0	75	2.0
Hansen 3	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	4.0
Hansen 4	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	3.0
Hansen 5	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	50	2.0
Hansen 6	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	50	1.0
Hansen 7	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	2.0
Hansen 8	Otsego Co\TIB Trestle-Deposit complex, 1 to 4 percent slopes\Trestle gravelly silt loam 50%	4.0	50	1.0
Hansen 11	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	50	2.0
Hansen 12	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	75	3.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Hansen 1	Cont_Cs_spIM-spc	0.84	0.84	-0.032	100
Hansen 2	Cont_Cs_spIM-spc	1.5	1.5	-0.085	100

Hansen 3	Cont_Cs_spIM-spc	3.0	3.0	-0.20	100
Hansen 4	Cont_Cs_spIM-spc	2.3	2.3	-0.15	100
Hansen 5	Cont Corn	1.4	1.4	-0.075	100
Hansen 6	Cont Corn	0.94	0.94	0.15	100
Hansen 7	Cont_Cs_spIM-spc	1.5	1.5	-0.083	100
Hansen 8	Cont_Cs_spIM-spc	0.74	0.74	-0.024	100
Hansen 11	Cont_Cs_spIM-spc	2.1	2.1	-0.13	100
Hansen 12	Cont_Cs_spIM-spc	2.1	2.1	-0.13	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Himers, Hinkley (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Himers	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	350	10
Hinkley 1	Otsego Co\Hb Hamplain silt loam\Hamplain silt loam 75%	5.0	200	2.0
Hinkley 2	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	2.0
Hinkley 2a	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	75	3.0
Hinkley 3	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	1.0
Hinkley 4a	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	1.0
Hinkley 4b	Otsego Co\ChC Chenango gravelly silt loam, 8 to 15 percent slopes\Chenango gravelly silt loam 85%	3.0	150	6.0
Hinkley 5	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	200	2.0
Hinkley Barnyard	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	200	2.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Himers	Cont_Cs_spIM-spc	13	13	-0.97	100
Himers	Cont GRT	0.85	0.85	0.78	22
Hinkley 1	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100
Hinkley 2	Cont_Cs_spIM-spc	1.7	1.7	-0.10	100
Hinkley 2a	Cont_Cs_spIM-spc	2.7	2.7	-0.18	100
Hinkley 3	Cont Corn	1.1	1.1	-0.050	100
Hinkley 4a	Cont Corn	0.79	0.79	0.16	100
Hinkley 4b	Cont_Cs_spIM-spc	4.3	4.3	-0.31	100

Hinkley 4b	Corn 6 Hay 4	2.5	2.5	0.14	72
Hinkley 5	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100
Hinkley Barnyard	Cont_Cs_spIM-spc	2.6	2.6	-0.17	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.



Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_HVF1-10 (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Home Flat	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	100	1.0
HVF 1	Otsego Co\ChD Chenango gravelly silt loam, 15 to 25 percent slopes\Chenango gravelly silt loam 85%	3.0	200	13
HVF 2	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	8.0
HVF 3	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	4.0
HVF 4	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	3.0
HVF 5	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	200	5.0
HVF 6	Otsego Co\VaC Valois gravelly loam, 8 to 15 percent slopes\Valois gravelly loam 85%	4.0	200	8.0
HVF 7	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	200	6.0
HVF 8	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	8.0
HVF 9	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	50	2.0
HVF 10	Otsego Co\RhA Rhinebeck silty clay loam, 0 to 3 percent slopes\Rhinebeck silty clay loam 80%	3.0	50	2.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value

Home Flat	Cont Cs_splM-spc	0.92	0.92	-0.038	100
HVF 1	Cont_Cs_splM-spc	16	16	-1.3	100
HVF 1	Corn 2 Hay 6	3.8	3.8	0.46	40
HVF 1	Cont GRT	1.2	1.2	0.76	22
HVF 2	Cont_Cs_splM-spc	7.1	7.1	-0.52	100
HVF 2	Corn 2 Hay 6	1.7	1.7	0.62	40
HVF 3	Cont_Cs_splM-spc	3.0	3.0	-0.20	100
HVF 4	Cont Corn	2.6	2.6	-0.17	100
HVF 5	Cont Corn	3.0	3.0	-0.010	100
HVF 6	Cont_Cs_splM-spc	6.0	6.0	-0.44	100
HVF 6	Corn 6 Hay 4	3.7	3.7	0.049	72
HVF 7	Cont_Cs_splM-spc	5.8	5.8	-0.42	100
HVF 7	Corn 6 Hay 4	3.6	3.6	0.060	72
HVF 7	Corn 3 Hay 7	1.6	1.6	0.58	44
HVF 8	Cont_Cs_splM-spc	7.1	7.1	-0.52	100
HVF 8	Corn 6 Hay 4	4.4	4.4	-0.0016	72
HVF 8	Corn 3 Hay 7	1.9	1.9	0.56	44
HVF 9	Cont_Cs_splM-spc	2.1	2.1	-0.13	100
HVF 10	Cont_Cs_splM-spc	2.2	2.2	-0.080	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.



Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_HVF11-19,Kiser,Kolka (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
HVF 11&12	Otsego Co\Ra Raynham silt loam\Raynham silt loam 80%	4.0	100	3.0
HVF 13	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	50	2.0
HVF 14	Otsego Co\Wb Wakeville silt loam\Wakeville silt loam 75%	5.0	50	2.0
HVF 15	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	50	2.0
HVF 16	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	50	2.0
HVF 17&18	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	100	2.0
HVF 19	Otsego Co\Hb Hamplain silt loam\Hamplain silt loam 75%	5.0	50	1.0
Kiser 1	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	3.0
Kolka	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	200	9.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
HVF 11&12	Cont Cs_spIM_spc	3.5	3.5	-0.24	100
HVF 13	Cont_Cs_spIM-spc	2.1	2.1	-0.13	100
HVF 14	Cont_Cs_spIM-spc	1.7	1.7	-0.10	100
HVF 15	Cont Corn	2.1	2.1	-0.13	100
HVF 16	Cont Corn	1.6	1.6	0.10	100
HVF 17&18	Cont_Cs_spIM-spc	2.5	2.5	-0.16	100
HVF 19	Cont_Cs_spIM-spc	1.1	1.1	-0.050	100

Kiser 1	Cont_Cs_splM-spc	2.6	2.6	-0.17	100
Kolka	Cont_Cs_splM-spc	9.3	9.3	-0.70	100
Kolka	Corn 3 Hay 7	2.5	2.5	0.51	44

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.



Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Larson,Mark,Otten,Martindale (2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Larson 1	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	150	5.0
Larson 2	Otsego Co\VaD Valois gravelly loam, 15 to 25 percent slopes\Valois gravelly loam 85%	4.0	200	14
Larson 3	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	230	8.0
Larson 4	Otsego Co\LpC Lordstown-Chadakoin complex, 8 to 15 percent slopes\Lordstown channery silt loam 55%	3.0	230	7.0
Mark 6	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	50	1.0
Mark 7	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	50	1.0
Mark Flat	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	50	2.0
Otten	Otsego Co\VaC Valois gravelly loam, 8 to 15 percent slopes\Valois gravelly loam 85%	4.0	75	4.0
Martindale	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	75	2.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Larson 1	Cont Cs_splM_spc	3.7	3.7	-0.25	100
Larson 1	Cont Cs_splM_spc	2.1	2.1	0.17	72
Larson 2	Cont_Cs_splM-spc	16	16	-1.2	100
Larson 2	Corn 2 Hay 6	3.6	3.6	0.47	40
Larson 3	Cont_Cs_splM-spc	8.5	8.5	-0.64	100

Larson 3	Corn 3 Hay 7	2.3	2.3	0.53	44
Larson 4	Cont Corn	7.3	7.3	-0.54	100
Larson 4	Corn 3 Hay 7	2.0	2.0	0.55	44
Mark 6	Cont Corn	0.79	0.79	0.16	100
Mark 7	Cont_Cs_spIM-spc	0.84	0.84	-0.032	100
Mark Flat	Cont_Cs_spIM-spc	1.4	1.4	-0.075	100
Otten	Cont_Cs_spIM-spc	2.4	2.4	-0.16	100
Martindale	Cont_Cs_spIM-spc	1.5	1.5	-0.085	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Mike,Mullane,Osterout,Palmatier(2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Mike 1	Otsego Co\LpC Lordstown-Chadakoin complex, 8 to 15 percent slopes\Lordstown channery silt loam 55%	3.0	200	11
Mike 2	Otsego Co\LpC Lordstown-Chadakoin complex, 8 to 15 percent slopes\Lordstown channery silt loam 55%	3.0	150	20
Mike 3	Otsego Co\LpC Lordstown-Chadakoin complex, 8 to 15 percent slopes\Lordstown channery silt loam 55%	3.0	150	20
Mullane	Otsego Co\VaB Valois gravelly loam, 3 to 8 percent slopes\Valois gravelly loam 85%	4.0	150	3.0
Osterout	Otsego Co\Ot Otego silt loam\Otego silt loam 75%	5.0	75	2.0
Palmatier 1	Otsego Co\VoC Volusia silt loam, 8 to 15 percent slopes\Volusia silt loam 80%	2.0	200	6.0
Palmatier 2	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	200	7.0
Palmatier 3	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	250	6.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Mike 1	Cont Cs_spIM_spc	11	11	-0.79	100
Mike 1	Corn 3 Hay 7	2.6	2.6	0.50	44
Mike 2	Cont_Cs_spIM-spc	24	24	-1.9	100
Mike 2	Cont GRT	1.8	1.8	0.71	22
Mike 3	Cont_Cs_spIM-spc	24	24	-1.9	100
Mike 3	Cont GRT	1.8	1.8	0.71	22

Mullane	Cont Corn	2.3	2.3	-0.14	100
Osterout	Cont Corn	2.0	2.0	-0.12	100
Palmatier 1	Cont_Cs_spIM-spc	5.6	5.6	-0.41	100
Palmatier 1	Corn 2 Hay 6	1.3	1.3	0.65	40
Palmatier 2	Cont_Cs_spIM-spc	6.9	6.9	-0.51	100
Palmatier 2	Corn 2 Hay 6	1.6	1.6	0.63	40
Palmatier 3	Cont_Cs_spIM-spc	6.4	6.4	-0.47	100
Palmatier 3	Corn 2 Hay 6	1.5	1.5	0.64	40

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Pier,Prager(2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Pier 1	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	180	8.0
Pier 2	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	200	4.0
Pier 3	Otsego Co\BfD Bath channery silt loam, 15 to 25 percent slopes\Bath channery silt loam 75%	3.0	200	11
Prager 1	Otsego Co\BfD Bath channery silt loam, 15 to 25 percent slopes\Bath channery silt loam 75%	3.0	200	5.0
Prager 2	Otsego Co\MmC Mongaup-Franklinville complex, 8 to 15 percent slopes\Mongaup channery silt loam 50%	3.0	150	10
Prager 3	Otsego Co\LpC Lordstown-Chadakoin complex, 8 to 15 percent slopes\Lordstown channery silt loam 55%	3.0	230	8.0
Prager 4	Otsego Co\MmC Mongaup-Franklinville complex, 8 to 15 percent slopes\Mongaup channery silt loam 50%	3.0	230	12
Prager 5	Otsego Co\LpC Lordstown-Chadakoin complex, 8 to 15 percent slopes\Lordstown channery silt loam 55%	3.0	200	5.0
Prager LField	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	230	6.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Pier 1	Cont Cs_spIM_spc	6.4	6.4	-0.47	100
Pier 1	Corn 3 Hay 7	1.6	1.6	0.58	44

Pier 2	Cont_Cs_spIM-spc	3.8	3.8	-0.26	100
Pier 2	Corn 6 Hay 4	2.4	2.4	0.16	72
Pier 3	Cont_Cs_spIM-spc	13	13	-0.97	100
Pier 3	Corn 2 Hay 6	3.0	3.0	0.52	40
Prager 1	Cont Corn	4.8	4.8	-0.34	100
Prager 1	Corn 6 Hay 4	3.0	3.0	0.11	72
Prager 2	Cont Corn	11	11	-0.83	100
Prager 2	Corn 3 Hay 7	3.0	3.0	0.47	44
Prager 3	Cont_Cs_spIM-spc	8.5	8.5	-0.64	100
Prager 3	Corn 2 Hay 6	2.0	2.0	0.60	40
Prager 4	Cont_Cs_spIM-spc	15	15	-1.2	100
Prager 4	Cont GRT	1.1	1.1	0.76	22
Prager 5	Cont_Cs_spIM-spc	4.8	4.8	-0.34	100
Prager 5	Corn 6 Hay 4	3.0	3.0	0.11	72
Prager LField	Cont_Cs_spIM-spc	6.1	6.1	-0.45	100
Prager LField	Corn 3 Hay 7	1.6	1.6	0.58	44

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Rumple,Scott,Schmidt(2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Rumple 1	Otsego Co\ChC Chenango gravelly silt loam, 8 to 15 percent slopes\Chenango gravelly silt loam 85%	3.0	150	5.0
Rumple 2	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	150	5.0
Scott 1	Otsego Co\MeB Mardin channery silt loam, 3 to 8 percent slopes\Mardin channery silt loam 80%	2.0	300	5.0
Schmidt 1	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	8.0
Schmidt 2	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	150	2.0
Schmidt 3	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	130	4.0
Schmidt 4	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	130	6.0
Schmidt 5	Otsego Co\CnB Chenango channery loam, fan, 3 to 8 percent slopes\Chenango channery loam 85%	3.0	100	8.0
Schmidt 6	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	130	3.0
Schmidt 7	Otsego Co\VaC Valois gravelly loam, 8 to 15 percent slopes\Valois gravelly loam 85%	4.0	100	6.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Rumple 1	Cont Cs_spIM_spc	4.3	4.3	-0.30	100
Rumple 1	Corn 6 Hay 4	2.7	2.7	0.13	72
Rumple 2	Cont_Cs_spIM-spc	4.3	4.3	-0.30	100
Rumple 2	Corn 6 Hay 4	2.7	2.7	0.13	72

Scott 1	Cont_Cs_spIM-spc	5.6	5.6	-0.41	100
Scott 1	Corn 3 Hay 7	1.5	1.5	0.59	44
Schmidt 1	Cont Corn	5.9	5.9	-0.43	100
Schmidt 1	Corn 3 Hay 7	1.6	1.6	0.58	44
Schmidt 2	Cont Corn	2.7	2.7	-0.18	100
Schmidt 3	Cont_Cs_spIM-spc	5.0	5.0	-0.36	100
Schmidt 3	Corn 6 Hay 4	3.1	3.1	0.098	72
Schmidt 4	Cont_Cs_spIM-spc	7.3	7.3	-0.54	100
Schmidt 4	Corn 3 Hay 7	2.0	2.0	0.55	44
Schmidt 5	Cont_Cs_spIM-spc	5.2	5.2	-0.37	100
Schmidt 5	Corn 6 Hay 4	3.2	3.2	0.088	72
Schmidt 6	Cont_Cs_spIM-spc	2.5	2.5	-0.16	100
Schmidt 7	Cont_Cs_spIM-spc	3.9	3.9	-0.27	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.



Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Solomon(2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Solomon 1	Otsego Co\HrB Howard gravelly silt loam, 2 to 8 percent slopes\Howard gravelly silt loam 85%	3.0	200	4.0
Solomon 2a	Otsego Co\HeB Herkimer gravelly silt loam, fan, 2 to 6 percent slopes\Herkimer gravelly silt loam fan 80%	4.0	200	4.0
Solomon 2b	Otsego Co\HeB Herkimer gravelly silt loam, fan, 2 to 6 percent slopes\Herkimer gravelly silt loam fan 80%	4.0	200	4.0
Solomon 3	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	130	5.0
Solomon 4	Otsego Co\HrB Howard gravelly silt loam, 2 to 8 percent slopes\Howard gravelly silt loam 85%	3.0	130	2.0
Solomon 5	Otsego Co\HrB Howard gravelly silt loam, 2 to 8 percent slopes\Howard gravelly silt loam 85%	3.0	100	3.0
Solomon 6	Otsego Co\HrB Howard gravelly silt loam, 2 to 8 percent slopes\Howard gravelly silt loam 85%	3.0	130	6.0
Solomon 7,8	Otsego Co\HrB Howard gravelly silt loam, 2 to 8 percent slopes\Howard gravelly silt loam 85%	3.0	150	5.0
Solomon 9	Otsego Co\HrB Howard gravelly silt loam, 2 to 8 percent slopes\Howard gravelly silt loam 85%	3.0	150	7.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Solomon 1	Cont Cs_spIM_spc	3.8	3.8	-0.26	100
Solomon 1	Corn 6 Hay 4	2.4	2.4	0.16	72
Solomon 2a	Cont_Cs_spIM-spc	3.8	3.8	-0.26	100

Solomon 2b	Cont_Cs_spIM-spc	3.8	3.8	-0.26	100
Solomon 3	Cont Corn	6.1	6.1	-0.45	100
Solomon 3	Corn 3 Hay 7	3.8	3.8	0.040	72
Solomon 4	Cont Corn	1.7	1.7	-0.100	100
Solomon 5	Cont_Cs_spIM-spc	2.3	2.3	-0.15	100
Solomon 6	Cont GRT	0.62	0.62	0.80	22
Solomon 7,8	Cont_Cs_spIM-spc	4.3	4.3	-0.30	100
Solomon 7,8	Corn 6 Hay 4	2.7	2.7	0.13	72
Solomon 9	Cont_Cs_spIM-spc	6.1	6.1	-0.45	100
Solomon 9	Corn 3 Hay 7	1.7	1.7	0.58	44

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Tambasco,Twomey(2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Tambasco	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	2.0
Twomey 1&5	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	100	4.0
Twomey 2	Otsego Co\ChA Chenango gravelly silt loam, 0 to 3 percent slopes\Chenango gravelly silt loam 85%	3.0	100	2.0
Twomey 3	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	200	1.0
Twomey 4	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	100	3.0
Twomey 6	Otsego Co\ScB Scio silt loam, 2 to 6 percent slopes\Scio silt loam 80%	4.0	100	3.0
Twomey 7	Otsego Co\ChB Chenango gravelly silt loam, 3 to 8 percent slopes\Chenango gravelly silt loam 85%	3.0	300	5.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Tambasco	Cont Cs_spIM_spc	1.6	1.6	-0.093	100
Twomey 1&5	Cont_Cs_spIM-spc	4.6	4.6	-0.33	100
Twomey 1&5	Corn 6 Hay 4	2.9	2.9	0.12	72
Twomey 2	Cont_Cs_spIM-spc	1.6	1.6	-0.093	100
Twomey 3	Cont Corn	1.0	1.0	-0.045	100
Twomey 4	Cont Corn	2.3	2.3	-0.15	100
Twomey 6	Cont_Cs_spIM-spc	3.5	3.5	-0.24	100

Twomey 7	Cont Cs spIM_spc	5.6	5.6	-0.40	100
Twomey 7	Corn 6 Hay 4	3.4	3.4	0.072	72

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Table 2:

RUSLE2 Erosion Calculation Record

File: plans\Jahnke\HVF_Woodbull,Young,MtVision,Green21,RumpleFlat(2011)

Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name: Mark Jahnke

Location: New York\Otsego County

Info:

Field name	Soil	Slope T Value	Slope length, ft	Slope steepness, %
Woodbull	Otsego Co\ChC Chenango gravelly silt loam, 8 to 15 percent slopes\Chenango gravelly silt loam 85%	3.0	130	4.0
Young1	Otsego Co\MeC Mardin channery silt loam, 8 to 15 percent slopes\Mardin channery silt loam 80%	2.0	280	10
Young 2	Otsego Co\BfC Bath channery silt loam, 8 to 15 percent slopes\Bath channery silt loam 75%	3.0	200	4.0
Mt. Vision 1	Otsego Co\Hb Hamplain silt loam\Hamplain silt loam 75%	5.0	100	2.0
Mt. Vision 2	Otsego Co\UnA Unadilla silt loam, 0 to 2 percent slopes\Unadilla silt loam 80%	4.0	100	2.0
Green 21	Otsego Co\ScA Scio silt loam, 0 to 2 percent slopes\Scio silt loam 80%	4.0	100	1.0
Rumple Flat	Otsego Co\Fg Fluvaquents-Udifluvents complex, frequently flooded\Fluvaquents gravelly silt loam 50%		100	2.0

Results:

Field name	Description	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Soil conditioning index (SCI)	STIR value
Woodbull	Cont Cs_spIM_spc	3.2	3.2	-0.22	100
Young1	Cont_Cs_spIM-spc	13	13	-0.99	100
Young1	Corn 2 Hay 6	3.0	3.0	0.52	40
Young 2	Cont_Cs_spIM-spc	3.8	3.8	-0.26	100
Young 2	Corn 6 Hay 4	2.3	2.3	0.16	72
Mt. Vision 1	Cont Corn	2.1	2.1	-0.13	100
Mt. Vision 2	Cont Corn	2.8	2.8	-0.19	100

Green 21	Cont_Cs_spIM-spc	1.4	1.4	-0.076	100
Rumple Flat	Cont Cs spIM_spc	1.6	1.6	-0.093	100

The SCI is the Soil Conditioning Index rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The STIR value is the Soil Tillage Intensity Rating. . It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

III. Test Results

To encompass how nutrients are to be managed, it is necessary to analyze manure and soils for the amount of nutrients contained within. Soils are to be tested at least once (1x) every three years to meet standards. Manure is to be tested at least once (1x) annually.

A. Soil Test Results

Soil samples were sent to Spectrum Analytic Inc., Washington CH, OH, for analysis. Analysis was completed using Mehlich III and, aluminum was reported for correlating to Cornell's nutrient testing philosophy.

Other soil samples were sent to Cornell University and A&L. Management keeps a copy of all soils test and can be provided as necessary.

Table 3 summarizes the **Soil Test Results** from Spectrum. Phosphorus has been correlated to Cornell's soil test values. The ratings for K, Mg, and Ca are based on % Base Saturation. This methodology is being used as it takes into account the Cation Exchange Capacity (CEC), Organic Matter (O.M.), and other soil properties. The base saturation method in essence determines the amount of nutrient available to the crop during the growing season. When you have a low rating there is not as much exchangeable nutrient that can be provided to the actively growing plant. This can be detrimental during very dry conditions since a lack of moisture reduces the ability of the plant to get to the nutrients it needs. When nutrients are in higher concentrations (to a point) the plant still has the ability to obtain nutrients to help it better handle the adverse weather conditions.

All fields receiving manure have been sampled. Several fields have a K:Mg imbalance developing as noted on Table 8 of the Lime Recommendations. If pH is low, high mag lime is the best means to correct; if pH close to 7, consider the use of sul-po-mag (KMS).

B. Manure Analysis

Manure samples were sent to Dairy One for analysis in February 2011. Samples will need to be retaken again in the spring/winter of 2012 to maintain the annual manure sample requirement for each source. Reports were not available at the time of print. Once received they will be checked against the previous analysis. A copy of the bedded pack analysis must be provided to the entity receiving the manure; records of export must be kept for 5 years.

Pit 1 and Pit 2 are both Dairy manure. The results are very similar and the highest concentration of nutrients has been used when allocation manure sources. Other samples taken include, Heifer (Pit 3), MHWW (Pit 4), and Dry Cow.

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P205 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
1701-1	Airport 1	Airport 1	10	A	1	3.5	11.3	7.0	88	16.2	H	3.7	324	M	15.8	429	M	67.4	3048	H	982	04/18/11
1934-1B	Airstrip	Airstrip	4	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	No Manure
1399-2	Banner 2	Banner 2	11.2	C	8	4.4	10.2	6.5	91	9.2	H	3.9	314	M	13.9	340	M	60.3	2463	M	1078	04/18/11
1399-3	Banner 3	Banner 3	17.1	A	1	4.1	13	5.9	31	2.0	VL	2	207	L	5.9	183	VL	36.8	1916	L	977	04/18/11
1399-5B	Banner 5a	Banner 5a	5.2	H	8	5.7	11.5	6.6	35	5.9	M	3.3	294	M	17.6	488	H	59.1	2730	M	946	04/18/11
1399-5A	Banner 5b	Banner 5b	18.3	A	6	4.4	11	6.4	39	4.8	M	1.3	109	L	9.8	257	L	56.1	2457	M	972	04/18/11
1399-6	Banner 6	Banner 6	4.8	A	6	6.4	10.8	6.4	25	2.0	L	1.3	109	L	9.7	250	L	66.7	2876	H	1095	04/18/11
1399-7	Banner 7	Banner 7	4.1	H	8	5.1	11.7	6.6	45	7.1	M	2.7	247	L	16.6	466	H	60.7	2847	M	820	04/18/11
1399-9	Banner 9	Banner 9	11	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	No Manure
2532-2	Barlow 1	Barlow 1	3	H	8	5.2	12.9	5.9	122	5.1	M	1.1	109	L	11.7	364	M	40.8	2115	L	1140	04/18/11
2532-3	Barlow 2	Barlow 2	9	A	1	3.6	9.3	6.5	80	10.4	H	2.1	150	L	17.6	392	H	58.5	2181	M	933	04/18/11
2532-4	Barlow 3	Barlow 3	6	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	12/13/01
2532-5	Barlow 4	Barlow 4	5	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	12/13/01
2532-5	Barlow 5	Barlow 5	6	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	12/13/01
2532-1	Barlow Flat	Barlow Flat	39.1	A	7	5.1	12.9	6.6	132	17.9	H	3.5	353	M	17.2	530	H	59.3	3050	M	999	04/18/11
1531-4	Broe 1&2	Broe 1&2	22.8	C	6	3	11.4	6.8	88	15.5	H	2.9	257	L	16.3	449	H	64.1	2934	M	901	04/18/11
1531-1	Broe 3	Broe 3	21	C	6	2.5	10.3	6.8	90	16.6	H	2.3	181	L	14.8	366	M	66.3	2729	H	825	04/18/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P2O5 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
1529-1	Broe 4	Broe 4	26	S	1	3.1	9.6	6.7	77	12.4	H	2.7	203	L	15.1	348	M	64.2	2475	M	903	04/18/11
1531-3	Broe 6	Broe 6	10.2	H	8	2.5	10.3	6.8	90	16.6	H	2.3	181	L	14.8	366	M	66.3	2729	H	825	04/18/11
0-0	Broe 7	Broe 7	16	C	2	4.7	13.4	5.5	50	2.0	VL	1.1	113	L	6.5	208	L	29.6	1581	VL	935	04/18/11
0-0	Broe 10	Broe 10	22.3	C	4	5.3	13.4	6.1	133	11.6	H	2	208	L	11.8	382	M	41.6	2235	L	991	04/18/11
1811-1	Burton 1	Burton 1	9.9	A	2	4.5	13	6.9	74	15.0	H	2.5	257	L	16.5	514	H	66.4	3443	H	876	04/18/11
1811-0	Burton 2	Burton 2	4	C	8	2.6	13.3	5.4	22	2.0	VL	1.6	168	L	8.3	264	L	27	1436	VL	1183	04/18/11
1811-8	Burton 3a	Burton 3a	6	C	8	2	13.4	5.7	17	2.0	VL	1.1	114	L	8.1	260	L	37.2	1995	L	1025	04/18/11
1811-8	Burton 3b	Burton 3b	9	I	ew fl	1.9	11	5.7	21	2.0	VL	1.1	97	L	10.1	266	M	45.2	1988	L	904	04/14/09
1811-2A	Burton 4	Burton 4	8	C	8	2.9	9.7	6.3	41	3.6	M	1.4	108	L	16.8	392	H	57.1	2223	M	759	04/18/11
1811-2B	Burton 5	Burton 5	21.2	C	8	3.3	11.4	6.7	99	16.9	H	3	265	M	16.1	440	H	62.9	2873	M	855	04/18/11
1650-5	Denny 1	Denny 1	11	A	3	3.8	15.1	5.9	183	10.3	H	1.8	208	L	11.2	407	M	39.4	2384	L	1159	04/18/11
1650-4	Denny 2	Denny 2	12.2	A	1	3.6	11	6.8	262	28.8	H	2.1	180	L	17.9	475	H	63.3	2798	M	1116	04/18/11
1650-3	Denny 3	Denny 3	7.9	A	1	3.3	8.5	6.5	227	15.1	H	3.3	220	M	16.4	334	H	58.4	1986	M	1172	04/18/11
3650-1	Eggleston 1	Eggleston 1	15	C	6	5.2	11.9	6.7	80	11.6	H	3.4	312	M	17.4	496	H	61.2	2906	M	1018	04/18/11
1651-6	Eichler 1	Eichler 1	4.9	A	4	4.5	11.2	6.1	147	15.0	H	1.2	102	L	14.2	384	M	52.5	2357	M	942	11/28/11
1651-4	Eichler 2	Eichler 2	14.9	A	1	5.3	13.8	6.3	207	25.8	H	3.5	373	M	15.2	502	M	55.2	3039	M	982	11/28/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P2O5 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
1651-1	Eichler 3	Eichler 3	10.6	A	7	4.6	12	6.1	66	5.3	M	1.7	160	L	14.7	422	M	53.6	2567	M	992	11/28/11
1651-2&3	Eichler 4	Eichler 4	10.7	A	4	4.1	12.3	6.3	87	9.7	H	0.9	91	VL	15.2	451	M	54.6	2691	M	968	11/28/11
1651-5	Eichler 5	Eichler 5	11.9	C	1	4.7	14.9	6.1	259	24.7	H	1.4	160	L	13.3	475	M	53.1	3164	M	1152	11/28/11
1651-7	Eichler 6	Eichler 6	6.2	A	1	4.7	14	6.4	130	11.5	H	1.8	200	L	13.1	442	M	50.7	2841	M	1143	11/28/11
3075-1	Foster 1	Foster 1	8.1	C	4	4.2	11.8	6.8	190	24.6	H	1.5	139	L	16	452	H	65.8	3101	H	1074	11/28/11
3075-2A	Foster 2	Foster 2	6.7	A	1	4.4	14.5	6.1	84	6.6	M	1.2	141	L	13.6	472	M	43.8	2543	L	1031	11/28/11
3075-2B	Foster 3	Foster 3	9.8	A	1	5.2	16.3	6.2	81	4.3	M	0.9	119	VL	13.4	524	M	41.4	2697	L	1164	11/28/11
0-0	German 1	German	3.1	A	1	5.3	12.3	6.6	67	9.5	H	1.8	176	L	10.2	303	M	67.9	3347	H	1015	11/28/11
0-0	German 2	German 2	6.1	A	1	4.9	11.9	6.4	43	5.2	M	1.9	180	L	12.1	343	M	65.8	3119	H	868	11/28/11
0-0	German 3	German 3	2.9	A	1	2.7	10.6	6.0	27	2.0	L	1.7	139	L	8.6	218	L	44.4	1880	L	993	11/28/11
1818-11A&B	Green 1	Green 1	19.6	A	2	4.3	12.1	7.2	108	21.9	H	3.5	329	M	16.7	486	H	75.1	3650	H	999	04/18/11
1818-11A&B	Green 2	Green 2	15.8	A	2	4.2	12.8	7.1	77	17.8	H	2.2	220	L	16.2	496	H	72.5	3707	H	875	04/18/11
1818-12	Green 3	Green 3	16	C	2	4.1	14.2	7.0	52	12.0	H	1.5	171	L	19.5	667	H	65.9	3756	H	844	04/18/11
1818-12	Green 4	Green 4	13.9	C	2	5.5	14.3	6.6	52	8.2	H	1.9	217	L	17.3	593	H	60.8	3473	M	920	04/18/11
1818-13A	Green 5	Green 5	15.4	C	2	3.7	13	6.6	126	18.7	H	1.8	183	L	19	590	H	59.2	3068	M	941	04/18/11
1818-13B	Green 6	Green 6	17	C	2	3.4	10.5	6.7	14	4.2	M	1.2	97	L	18	454	H	62.8	2640	M	991	04/18/11
1818-17	Green 7	Green 7	3.5	C	2	2.5	10.3	6.3	14	2.0	VL	1.3	108	L	22.1	546	VH	65	2679	H	638	04/18/11
1818-15&16	Green 8	Green 8	6.1	C	8	3.4	12.6	6.9	56	10.8	H	1.5	150	L	14.4	435	M	69.5	3497	H	1009	04/18/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P205 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
1818-1	Green 9	Green 9	5.7	C	5	4.4	10.9	6.7	129	17.8	H	2.8	234	L	18.2	475	H	61	2657	M	976	04/18/11
1819-0	Green 10	Green 10	10	A	5	5	13.9	6.6	88	14.4	H	1.7	183	L	17.1	570	H	61.2	3399	M	903	04/18/11
1819-2E	Green 11	Green 11	6.9	A	4	5.1	15.2	6.8	111	24.0	H	2.2	264	L	15.7	572	M	65.4	3984	H	788	04/18/11
1819-0	Green 12	Green 12	13.1	A	5	4.4	13.1	6.6	328	39.1	H	4.1	423	H	18.5	581	H	57.4	3002	M	1054	04/18/11
1819-0	Green 13	Green 13	4.5	C	6	4.2	13.5	6.6	174	22.1	H	3.5	366	M	19.3	628	H	57.2	3095	M	1039	04/18/11
1819-8C	Green 14	Green 14	7	C	8	3.3	11.4	6.8	85	14.3	H	3.7	329	M	15.5	422	M	64.2	2919	M	949	04/18/11
1819-8B	Green 15	Green 15	6.6	C	8	2.6	9.8	6.9	74	14.1	H	4.3	329	H	15.8	371	M	65.4	2562	H	892	04/18/11
1819-8A	Green 16	Green 16	6.3	C	8	2.8	9.2	6.5	53	7.7	M	2.6	183	L	17.2	378	H	58.3	2136	M	868	04/18/11
1819-4	Green 17	Green 17	8	A	8	4.8	14.8	6.1	133	12.9	H	2.2	257	L	10.5	373	M	46.9	2783	L	1010	04/18/11
1819-3	Green 18	Green 18	13.5	C	8	3.4	12.7	6.6	151	25.0	H	3.1	302	M	15.3	465	M	61.7	3128	M	872	11/28/11
1818-9	Green 19	Green 19	2.7	C	8	3.1	12.7	6.1	55	4.0	M	1.1	113	L	12.4	377	M	48.7	2472	L	1001	11/28/11
1818-10	Green 20	Green 20	4.4	C	6	4	15.7	5.7	92	4.3	M	1.5	186	L	9.7	364	L	35.3	2214	L	1030	11/28/11
1818-0	Green 21	Green 21	3.9	C	4	3.2	11.6	6.1	60	3.8	M	1.2	111	L	13.4	375	M	54.5	2538	M	1054	11/28/11
1727-1	Hansen 1	Hansen 1	4.5	A	1	5.4	15.7	6.4	189	24.4	H	4.1	502	H	13.4	505	M	52	3275	M	1009	04/18/11
1727-2&3	Hansen 2	Hansen 2	8.7	C	1	4.2	12.4	6.4	136	20.1	H	1.9	183	L	16.1	477	H	62.6	3095	M	892	04/18/11
1727-4	Hansen 3	Hansen 3	8.6	A	5	4.2	10	6.5	73	9.4	H	2.9	223	L	15.3	368	M	60	2411	M	963	04/18/11
1727-5	Hansen 4	Hansen 4	6.4	A	6	4.4	11.9	6.5	112	14.3	H	2.5	230	L	16.6	475	H	59.1	2822	M	982	04/18/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P205 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
1727-14	Hansen 5	Hansen 5	16.5	C	1	5.5	11.8	6.1	70	7.2	M	2.9	269	L	15.9	452	M	50.8	2405	M	833	04/18/11
1727-9A	Hansen 6	Hansen 6	20	C	8	6	11	6.6	59	9.3	H	2.5	218	L	17.9	472	H	59.6	2619	M	890	04/18/11
1727-11&12	Hansen 7	Hansen 7	12	C	8	4	9.5	6.9	36	7.1	M	1.8	136	L	12.6	287	M	71	2697	H	1109	04/18/11
1727-9B	Hansen 8	Hansen 8	15	C	8	3.3	9.3	7.1	59	14.1	H	3.2	230	M	17.9	400	H	69.9	2601	H	852	04/18/11
1727-10	Hansen 11	Hansen 11	14	C	8	4.2	10.6	6.8	66	11.6	H	2.3	188	L	17.8	454	H	63.2	2682	M	944	04/18/11
1727-6&7	Hansen 12	Hansen 12	8.4	A	1	5.4	14	6.3	210	20.8	H	3.9	423	M	13.7	463	M	48.2	2705	L	1057	04/18/11
0-0	Himers	Himers	30.6	C	5	5.5	13.4	5.9	28	2.0	VL	2.8	291	L	11.9	384	M	31.7	1706	L	1179	04/18/11
1518-1	Hinkley 1	Hinkley 1	28.6	C	7	4.4	12.8	7.0	55	12.4	H	2.3	230	L	17.1	526	H	67.6	3473	H	760	04/18/11
1518-2	Hinkley 2	Hinkley 2	25	S	1	2.4	10.1	6.8	67	11.8	H	2.7	213	L	16.3	394	H	64.3	2585	M	585	04/18/11
1518-0	Hinkley 2a	Hinkley 2a	7	S	1	1.9	8.9	6.9	18	2.0	VL	1	72	L	12.6	268	M	71.8	2546	H	495	04/18/11
1518-3	Hinkley 3	Hinkley 3	11.5	S	1	4.4	9.6	7.3	286	49.7	VH	6.6	497	VH	19.9	458	H	73.5	2820	H	894	04/18/11
1518-4A	Hinkley 4a	Hinkley 4a	26.2	C	6	3.4	9.6	6.9	42	5.0	M	1.5	116	L	16	370	H	68	2621	H	571	04/18/11
1528-4B	Hinkley 4b	Hinkley 4b	10.8	H	8	2.2	11.2	6.8	74	14.7	H	1.5	129	L	11.5	308	M	70.4	3156	H	684	12/15/06
1518-6	Hinkley 5	Hinkley 5	3.1	S	1	4	10.1	7.0	59	12.9	H	4.4	349	H	15.9	385	M	66.6	2691	H	732	04/18/11
1528-5	Hinkley barnyard	barny	3.8	H	8	0	0	0.0	0	2.0	VL	0	VL	0	0	VL	0	0	VL	0	No Manure	
2340-1&2	Home Flat	Home Flat	12.5	C	8	4.5	14.4	6.2	202	15.6	H	4.1	467	H	12	417	M	42.2	2439	L	1115	11/28/11
2991-1	HVF 1	HVF 1	30.1	A	3	4.8	10.9	6.8	105	21.9	H	4.1	346	H	13.2	345	M	66	2874	H	689	04/18/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P205 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
2991-2	HVF 2	HVF 2	26.1	C	6	3.6	11.6	7.2	262	69.1	VH	5.4	489	VH	16.4	458	H	73.4	3413	H	685	04/18/11
2991-3	HVF 3	HVF 3	7.3	A	3	4	12.8	6.8	318	69.1	VH	6.1	608	VH	13.3	410	M	63.9	3273	M	757	04/18/11
2991-4	HVF 4	HVF 4	8.5	C	8	5.7	14.6	7.0	237	58.0	VH	5.7	647	VH	15.4	540	M	65.9	3863	H	750	04/18/11
2991-5	HVF 5	HVF 5	16.9	C	3	5.5	10.4	7.0	111	23.4	H	3.3	265	M	14.1	354	M	69.6	2906	H	780	04/18/11
2991-6	HVF 6	HVF 6	32	C	8	3	10.3	6.8	119	21.2	H	1.9	155	L	17	419	H	64.4	2640	M	825	04/18/11
2991-7A	HVF 7	HVF 7	32	C	2	3.5	10.8	6.9	199	39.1	H	1.9	161	L	10.4	269	M	73.2	3159	H	817	04/18/11
2991-8	HVF 8	HVF 8	10	A	7	3.1	8.9	7.1	155	36.7	H	1.6	111	L	16.3	348	H	73.1	2609	H	670	04/18/11
2991-9	HVF 9	HVF 9	2.1	H	8	5.5	14.1	6.9	88	20.7	H	2	220	L	13.3	452	M	70.2	3971	H	643	11/28/11
2991-10	HVF 10	HVF 10	5.9	C	2	2.9	10.9	6.6	129	21.9	H	1.8	155	L	12.8	334	M	65.4	2853	H	823	11/28/11
2991-11&12	HVF 11&12	HVF 11&12	28.6	C	8	3.6	12.7	7.1	125	30.0	H	2.4	242	L	13.7	417	M	74.8	3801	H	775	11/28/11
2991-13	HVF 13	HVF 13	5	A	6	3.5	11.3	6.8	134	24.3	H	1.2	106	L	12.2	331	M	69.9	3150	H	863	04/18/11
2991-14	HVF 14	HVF 14	6.3	H	8	3.7	12.7	6.9	63	9.4	H	1.5	150	L	13.6	414	M	70.4	3578	H	438	04/18/11
2991-15	HVF 15	HVF 15	9.5	A	5	3.3	17.9	7.2	85	26.8	H	1.6	220	L	9.8	419	L	83.9	6812	VH	593	11/28/11
2991-16	HVF 16	HVF 16	12.5	H	8	3.5	12.8	7.1	53	12.4	H	1.6	160	L	11.8	363	M	77.5	3963	H	705	11/28/11
2991-17&18	HVF 17&18	HVF 17&18	18.7	C	7	4.2	13.4	7.3	102	29.8	H	2	208	L	12.7	408	M	85.3	4574	VH	685	11/28/11
2991-19	HVF 19	HVF 19	6.2	H	8	4.1	13.7	7.0	104	30.0	H	2	213	L	12	394	M	73	4001	H	417	11/28/11
3727-9	Kiser 1	Kiser 1	10	C	5	4.2	12.9	7.2	182	38.8	H	4.7	475	H	13.9	429	M	76.6	3941	H	903	11/28/11
3705-6&7	Kolka	Kolka	15.7	A	1	3.1	10.3	6.7	105	17.6	H	3.3	262	M	15.7	389	M	63	2606	M	841	04/18/11
2346-4	Larson 1	Larson 1	25.6	C	6	4.7	13.7	6.6	106	13.4	H	3.9	418	M	16	524	H	60.1	3291	M	1072	11/28/11
2346-1	Larson 2	Larson 2	5.6	H	8	5.2	15	6.2	42	2.9	L	1.6	183	L	12.3	444	M	46.1	2760	L	1036	11/28/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P2O5 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (CA) LBS/A	Ca Rating	ALUMINUM (AL) PPM	Sample Date
2346-3	Larson 3	Larson 3	28.7	A	1	4.8	15.3	5.9	35	2.0	VL	1.5	175	L	10.8	394	M	40.6	2481	L	1062	11/28/11
0	Larson 4	Larson 4	10.3	H	8	5.1	16.5	6.1	20	2.0	VL	1.3	171	L	11	433	M	29.4	1937	VL	1118	11/28/11
2341-6	Mark 6	Mark 6	2	A	5	2.7	10.9	5.8	162	17.5	H	1.5	131	L	10.1	262	M	44.2	1922	L	825	01/14/06
2341-7	Mark 7	Mark 7	3.4	A	5	2.7	10.9	5.8	162	17.5	H	1.5	131	L	10.1	262	M	44.2	1922	L	825	01/14/06
2341-2	Mark Flat	Mark Flat	10	A	3	3.3	15.5	5.6	81	2.0	VL	1	121	L	7.5	280	L	29.4	1821	VL	1217	11/28/11
2341-4	Otten	Otten	12	H	8	4.4	11.9	6.6	81	8.0	M	3.6	338	M	12.8	366	M	63.5	3020	M	1159	01/14/06
1650-2&6	Martindale	Martindale	8.2	A	3	3.2	12.3	6.3	210	17.4	H	0.8	81	VL	13.9	412	M	56	2765	M	1175	01/15/08
2344-1BA	Mike 1	Mike 1	5.7	H	8	3.8	14.2	5.9	128	2.5	L	2.9	318	L	6.3	215	L	31.6	1790	L	1220	11/14/02
2344-1B	Mike 2	Mike 2	6	H	8	3	16.1	5.8	78	2.0	VL	2.2	276	L	6.4	249	L	24.4	1570	VL	1310	11/18/96
2344-1A	Mike 3	Mike 3	4.2	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	11/14/02
0-0	Mt. Vision 1	Mt. Vision 1	19.5	C	3	4.4	9.2	5.9	38	2.0	L	1.8	126	L	13.5	297	M	45.6	1674	L	948	04/18/11
0-0	Mt. Vision 2	Mt. Vision 2	24.9	C	3	2.6	11.7	6.3	90	7.3	M	1.8	168	L	11	310	M	36	1692	L	1033	04/18/11
3370-3	Mullane	Mullane	15.8	H	8	6.2	12	6.7	73	12.5	H	2	185	L	18.6	539	H	61.4	2955	M	888	04/18/11
0-0	Osterout	Osterout	12.2	C	6	3.6	10.8	6.8	52	9.4	H	3	252	M	15.5	401	M	64.9	2805	M	996	04/18/11
3121-2C&D	Palmatier 1	Palmatier 1	15	H	8	3.3	10.5	6.4	21	2.5	L	0.7	59	VL	11.7	294	M	64.6	2703	M	959	11/28/11
3121-2A&B	Palmatier 2	Palmatier 2	15	C	1	4	12.8	6.8	39	7.7	M	1.7	166	L	12.9	398	M	68.8	3533	H	872	11/28/11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P2O5 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
3121-2E	Palmatier 3	Palmatier 3	8	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	01/01/00
1518-1A&C	Pier 1	Pier 1	8	C	6	3.9	12.2	6.3	53	3.9	M	1.1	102	L	12.7	370	M	46.8	2280	L	1091	11/28/11
1518-2	Pier 2	Pier 2	10	C	6	3.8	12.1	6.2	22	2.0	VL	0.7	66	VL	7.3	211	L	52.4	2537	M	1167	11/28/11
1518-1B	Pier 3	Pier 3	7	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	No Manure
1939-2	Prager 1	Prager 1	10.7	H	8	4.5	12.4	6.1	22	2.0	VL	0.6	59	VL	11.9	354	M	39	1934	L	1134	Nov-11
1939-4	Prager 2	Prager 2	11.3	H	8	4.7	13	5.9	21	2.0	VL	1.2	118	L	9.6	299	L	33.7	1751	L	1162	Nov-11
1939-5B	Prager 3	Prager 3	9.4	H	8	5.2	14.6	5.9	27	2.0	VL	1.4	163	L	10.5	368	M	30.3	1766	L	1202	Nov-11
1939-1	Prager 4	Prager 4	10.4	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	Nov-96
1939-3	Prager 5	Prager 5	8.5	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	No Manure
1939-5A	Prager Lfield	Prager Lfield	8.6	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	No Manure
1508-2,3,4	Rumple 1	Rumple 1	11	A	4	2.2	11.7	5.8	18	2.0	VL	1.3	116	L	9.6	268	L	48	2238	L	930	Apr-11
1508-1	Rumple 2	Rumple 2	9.1	H	8	3.4	11.1	7.1	155	27.8	H	2.4	210	L	18.4	493	H	70.1	3122	H	941	Jan-08
0-0	Rumple Flat	Rumple Flat	12.5	I	new fld	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	Jan-00
2485-1	Scott 1	Scott 1	32	H	8	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	No Manure
1916-9	Schmidt 1	Schmidt 1	10.9	C	4	4.2	12.1	5.9	73	5.9	M	1.2	116	L	8.5	246	L	40.8	1976	L	839	Apr-11
1916-9	Schmidt 2	Schmidt 2	20.7	C	4	4.9	10.6	6.2	39	2.7	L	1.8	150	L	10.8	275	M	53.4	2267	M	775	Apr-11
1916-10,13	Schmidt 3	Schmidt 3	11.2	C	4	3.9	15.3	5.8	35	2.0	VL	1	116	L	7.2	266	L	37	2268	L	1004	Apr-11
1916-3,11	Schmidt 4	Schmidt 4	17	C	4	3.6	14.5	6.0	21	2.0	VL	1	108	L	7.7	268	L	33.3	1931	L	993	Apr-11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P205 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
0	Schmidt 5	Schmidt 5	7.1	C	4	3.9	13.9	6.0	15	2.0	VL	1.1	116	L	4.6	153	VL	33.8	1877	L	942	Apr-11
1916-1,2	Schmidt 6	Schmidt 6	10.5	C	4	5.6	16	6.1	146	23.4	H	1.5	193	L	12.5	480	M	48.5	3104	L	783	Apr-11
1917-1	Schmidt 7	Schmidt 7	6.5	C	4	5.8	13.7	6.2	21	2.0	VL	1.7	180	L	10.2	334	M	53	2897	M	812	Apr-11
T2655-3a	Solomon 1	Solomon 1	12	C	3	2.9	12.5	6.6	70	11.9	H	2	193	L	6.6	197	L	71.5	3585	H	849	Apr-11
T2655-1a	Solomon 2a	Solomon 2a	14	S	1	3.9	13.7	6.8	27	2.0	VL	1.4	146	L	12.4	408	M	69.6	3813	H	610	Apr-11
T2655-1b	Solomon 2b	Solomon 2b	6	S	1	3.5	15.6	5.8	20	2.0	VL	1	116	L	9	334	L	51.6	3210	M	879	Apr-11
T2655-1c	Solomon 3	Solomon 3	12	C	5	4.9	13.2	6.8	27	2.8	L	1.8	180	L	8.5	268	L	73.1	3849	H	719	Apr-11
T2655-1d	Solomon 4	Solomon 4	9	C	3	4.9	13.2	6.8	27	2.8	L	1.8	180	L	8.5	268	L	73.1	3849	H	719	Apr-11
T2655-1e	Solomon 5	Solomon 5	6	A	4	3.2	11.2	6.4	24	2.0	VL	1.8	155	L	12.2	327	M	64.6	2886	M	768	Apr-11
T2655-3e	Solomon 6	Solomon 6	5	C	3	3.6	13.1	5.8	32	2.0	VL	2.9	294	L	8.1	253	L	33.8	1767	L	942	Apr-11
T2655-3c, d	Solomon 7,8	Solomon 7,	10.7	C	1	3.8	12.6	7.0	20	4.6	M	1.3	126	L	8.2	250	L	77.4	3918	H	804	Apr-11
T2655-3b	Solomon 9	Solomon 9	10	A	3	3.5	13.1	6.7	20	2.0	VL	1.5	155	L	6.6	206	L	73.9	3857	H	737	Apr-11
1650-1	Tambasco	Tambasco	19.7	A	1	5.1	13.1	7.1	242	38.1	H	3	309	M	18.2	572	H	69.7	3644	H	1070	Nov-11
3129-14&32	Twomey 1&5	Twomey 1&	50	C	8	3.8	11.6	7.0	265	48.8	VH	3.8	344	M	14.6	408	M	68.6	3194	H	867	Apr-11
3128-1	Twomey 2	Twomey 2	14.4	CC	ew flc	3.8	12.7	7.3	294	63.1	VH	4.1	408	H	16.5	502	H	79.4	4019	H	891	Nov-11
3129-0	Twomey 3	Twomey 3	6	A	3	3.2	11.7	6.5	160	16.7	H	1	91	L	13.3	373	M	63.9	2993	M	1118	Nov-11
3129-10	Twomey 4	Twomey 4	12	A	3	4	11.8	6.8	164	20.3	H	1.1	102	L	15.6	440	M	66.7	3144	H	1124	Nov-11
3129-0	Twomey 6	Twomey 6	6	A	3	2.7	8.5	6.5	209	18.2	H	2.4	156	L	19.5	398	H	56.2	1908	M	1030	Apr-11

Table 3 Soil Test Results

FSA ID	Common Id	Map ID	ACRES	CROP	YEAR	% OM	CEC	Soil pH	PHOS (P) LBS/A	Cornell P205 (lbs/ac)	P Rating	K % Sat.	POTASSIUM (K) LBS/A	K Rating	Mg% Sat	MAG (Mg) LBS/A	Mg Rating	Ca% Sat	CALCIUM (Ca) LBS/A	Ca Rating	ALUMINUM (Al) PPM	Sample Date
3129-5	Twomey 7	Twomey 7	8.4	A	9	0	0	0.0	0	2.0	VL	0	0	VL	0	0	VL	0	0	VL	0	Mar-00
0-0	Woodbull	Woodbull	12	A	5	6.3	13.2	6.6	147	31.0	H	1.6	168	L	18.7	591	H	59.7	3155	M	699	Apr-11
3649-1	Young 1	Young 1	17.2	CC	ew flc	4	14.2	6.2	53	4.8	M	1.5	165	L	13	442	M	43.2	2448	L	969	Apr-11
3649-2	Young 2	Young 2	13.2	C	8	5.7	12.7	6.9	90	16.1	H	3.3	321	M	16.2	493	H	66	3339	H	975	Apr-11
0-0	VTA	VTA	0	H	8	3.5	11.5	6.7	119	21.5	H	10.8	969	VH	15.8	435	M	55.3	2535	M	766	May-09
		End				3.7	Ave.	5.9		13.1		2.1			12.3			52.4				

1937

C = Corn; A = Alfalfa; H = Hay; CC = Cereal Crop
Rating (VL=Very Low, L- Low, M=Medium, H=High, VH= Very High)

162 Fields

1937 Acres

IV. Nutrient Management Plan (NMP)

The NMP has been designed to meet the Nitrogen needs of the intended crop unless the P Index has indicated a concern with phosphorus runoff. In the event concerns were raised while determining the P-Index, fields have been identified for additional BMP's.

A. Fields Requiring N BMP Strategies

Fields that have an NLI > 10 are to consider Appendix 1, Nitrogen Leaching Index strategies for manure applications. Be sure to apply manure in a fashion that meets the guideline contained within. Appendix 4 lists 480.6 acres of corn that must implement N BMP's in order to receive manure in September or October. The farm has adopted the practice of cover cropping to allow for September and October applications. The number of acres may increase after soil samples have been taken.

B. Fields Requiring Strategies to Reduce P Runoff

Fields that met the criteria (75-99) must not apply manure in excess of crop removal as outlined in Appendix 2. In order to allow the greatest amount of flexibility in manure applications and rates, it is sometimes necessary to create a longer setback distance or try to incorporate the manure more quickly. The following fields should implement the following strategies to meet guidelines.

Field ID	Strategy	
Green 12		
Hinkley 3		
HVF 2		
HVF 3	<u>Follow Spreading</u> <u>Schedule and rates as</u> <u>outlined on Table 6 to</u> <u>meet P-Index</u> <u>requirements.</u>	
HVF 4		
HVF 8		
HVF 19		
Kiser 1	<u>Goal is not to exceed</u> <u>crop removal rates.</u>	
Twomey 1&5		
Twomey 2		

NLI Fields			
Tract Owner	Map Id	Acres	Tons
Broe 10	Broe 10	22.3	490.6
Burton 2	Burton 2	4	88
Burton 3a	Burton 3a	6	132
Burton 4	Burton 4	8	176
Burton 5	Burton 5	21.2	466.4
Eichler 5	Eichler 5	11.9	0
Green 3	Green 3	16	240
Green 4	Green 4	13.9	305.8
Green 5	Green 5	15.4	338.8
Green 6	Green 6	17	374
Green 7	Green 7	3.5	77
Green 8	Green 8	6.1	134.2
Green 9	Green 9	5.7	85.5
Green 13	Green 13	4.5	99
Green 14	Green 14	7	154
Green 15	Green 15	6.6	145.2
Green 16	Green 16	6.3	138.6
Green 18	Green 18	13.5	297
Green 19	Green 19	2.7	59.4
Green 20	Green 20	4.4	96.8
Green 21	Green 21	3.9	85.8
Hansen 5	Hansen 5	16.5	0
Home Flat	Home Flat	12.5	275
HVF 2	HVF 2	26.1	313.2
HVF 4	HVF 4	8.5	102
HVF 5	HVF 5	16.9	371.8
HVF 7	HVF 7	32	704
Kiser 1	Kiser 1	10	220
Larson 1	Larson 1	25.6	563.2
Schmidt 1	Schmidt 1	10.9	239.8
Schmidt 2	Schmidt 2	20.7	455.4
Schmidt 3	Schmidt 3	11.2	246.4
Schmidt 4	Schmidt 4	17	374
Schmidt 5	Schmidt 5	7.1	156.2
Schmidt 6	Schmidt 6	10.5	231
Schmidt 7	Schmidt 7	6.5	143
Solomon 1	Solomon 1	12	264
Solomon 3	Solomon 3	12	264
Solomon 4	Solomon 4	9	198
Solomon 6	Solomon 6	5	110
Solomon 7,8	Solomon 7,8	10.7	0
0	end	0	0
Totals		481	9215

Appendix 4. Corn Fields with NLI > 10 and Planned for Winter Sept. to Oct. Applications

**Spreading
Risk**

Rating		Acres	Tons	Gallons
1	All Year	1,471.7	31,308	7,498,946
	All Year_No Snow	126.9	2,507	600,431
	Incorp. 2-5 days	0.0	0	0
2	May-Jan	31.0	6,238	1,494,180
	May-Jan_No Snow	0.0	0	0
3	May-Oct	37.3	2,318	555,186
	Incorp 3-5 days	0.0	1,509	361,485
	Incorp in 2 days	0.0	0	0
4	May-Aug	21.2	466	111,713
	Incorp 3-5 days	0.0	0	0
	Incorp in 2 days	0.0	0	0
7	None Applied	248.7	0	0
Totals		1,936.8	44,347	10,621,940

**Waste
Allocations**

Source	No. of Animals	Total Volume (tons)	Allocated	Export (Neg. values indicate ample land base)
1 [Dairy]	440	12,600	27,683	-15,083
2 [Dry Cow]	55	1,397	2,245	-848
3 [Heifer]	240	3,871	5,321	-1,450
4 [MHWW]	0	5,121	9,098	-3,977
5 [Bedded]	111	1,795	0	1,795
6 [New Heifer]	65	605	0	605
7 [None]	0	0	0	0
8 [Pit 1]	0	0	0	0
9 [Pit 2]	0	0	0	0
10 []	0	0	0	0
	911	25,390	44,347	-18,957
Total Gallons		6,081,334	10,621,940	-4,540,606

Acreage Summary

Crop	Acres	Average Yield Potential (t/ac)
Corn	967.8	22.9
Hay	640.4	5.1
New Seeding	182.9	5.0
Soy or Rye	124.2	0.0
Pasture	0	0.0
Total	1915.3	
Total Rcving Manure	1586.6	

NLI Index Analysis

(NLI>10 and PI allows All Year Spreading)

Tons		9,215
Gallons		2,207,210
Acres		480.6

Animal Units	992.2
Total Acres	1915.3
Animal Units per Acre	0.5
AU per Manure Ac	0.6

546 Dairy
365 Heifer

C. Spreading Risk Assessment

The following table illustrates the amount of manure that can be applied over the determined acres for certain times of the year.

Rating		Acres	Tons	Gallons
1	All Year	1,471.7	31,308	7,498,946
	All Year_No Snow	126.9	2,507	600,431
	Incorp. 2-5 days	0.0	0	0
2	May-Jan	31.0	6,238	1,494,180
	May-Jan_No Snow	0.0	0	0
3	May-Oct	37.3	2,318	555,186
	Incorp 3-5 days	0.0	1,509	361,485
	Incorp in 2 days	0.0	0	0
4	May-Aug	21.2	466	111,713
	Incorp 3-5 days	0.0	0	0
	Incorp in 2 days	0.0	0	0
7	None Applied	248.7	0	0
Totals		1,936.8	44,347	10,621,940

*The values reflect volumes of manure that will be “acceptable” to apply once current soil samples are available; assuming the P-Index has not been flagged by fluctuations in the P levels of the soils.

D. Nutrient Budget

The **Nutrient Budget**, **Table 4**, determines the amount of nutrients allocated versus the amount of nutrients Cornell says the crop requires, or the amount of nutrient Penn State University says is removed. A comparison of the 2 university's shows large variations. Under most circumstances it is not advisable to purchase large amounts of P fertilizer unless fertility is extremely low (per soil test results) and/or there is not enough manure to cover the needs of the crop.

The amount of waste allocated was determined from the **Fertility Calculations** sheet, refer to **Table 5**. There is a **shortage** of manure for the land base inventoried in the plan. Manure was over allocated (4.5 M gallons) to allow for greater spreading flexibility; only 6 M gallons is generated. Supplement additional commercial fertilizer if manure applications fall short of recommendations. Work with your planner to make accurate nutrient determinations. Continue to keep spreading records for manure, fertilizer, and yield.

The farm could increase the heard size by at least 2000 animal units given the current land base and nutrient levels generated.

Table 4 NUTRIENT BUDGET

	NUTRIENT (lbs) for Crop Production Balance				
	CORNELL NITROGEN	CORNELL P	PSU P Removal	CORNELL K	PSU K Removal
Total Nutrient Demand	224,415	47,229	163,931	156,677	481,561
Manure Nutrients Allocated	-66,848	-75,604	-75,604	-222,970	-222,970
Fertilizer Nutrients Allocated	-108,832	-18,785	-18,785	-154,462	-154,462
NET LOAD (lbs.)	48,735	(47,161)	69,542	(220,755)	104,129

Need More N Over-supplied Need More P Over-supplied Need More K

Waste Allocations (Gallons)

Source	No. of Animals	Total Volume (Gallons)	Allocated	Need More Manure
1 [Dairy]	440	3,018,014	6,630,731	-3,612,717
2 [Dry Cow]	55	334,611	537,677	-203,066
3 [Heifer]	240	927,128	1,274,371	-347,243
4 [MHWW]	0	1,226,683	2,179,162	-952,479
5 [Bedded Pack]	111	429,988	0	429,988
6 [New Heifer]	65	144,910	0	144,910
7 [None]	0	0	0	0
8 [Pit 1]	0	0	0	0
9 [Pit 2]	0	0	0	0
10 []	0	0	0	0
	911			-4,540,606
		6,081,334	10,621,940	
Total Gallons		6,081,334	10,621,940	-4,540,606

	NUTRIENT (lbs) for Mass Balance		
	35% Avail. N	PSU P2O5	PSU K2O
Total Nutrient Generated	38,775	52,339	153,163
Total Nutrient Demand	175,670	143,341	407,556
Status	Room for More Cows	Room for More Cows	Room for More Cows
How Many by Nutreint	1743 a.u. OR 1245 cows	2453 a.u. OR 1752 cows	2343 a.u. OR 1673 cows

Nutrient Demand for Manured Fields

Use lowest number to arrive at safe nutrient levels

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)			Primary Manure				Secondary Manure				Fertilizer Use				Net Nutrients (lbs) (Red indicates surplus)														
				POTENTIAL YIELD	ACTUAL YIELD				MANURE NUTRIENT (LBS PER ACRE)	MANURE NUTRIENT (LBS PER ACRE) 2	MANURE NUTRIENT (LBS PER ACRE) 2	Broadcast Fertilizer	Starter Fertilizer																						
				MANURE TYPE	MANURE TONS/AC	TONS/ FIELD	Amm-N	Organic N	P205	K20	MANURE TYPE 2	MANURE TONS/AC 2	TONS/ FIELD 2	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C														
1701-1	Airport 1	10	AGE	6		40	40	0	75	1 [Dairy]	22	220	0	43	46	133	1 [Dairy]	3	30	6	6	18	200	BC2	0	0	116	200	ST4	24	12	16	-33	-65	-208
1934-1B	Airstrip	4	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
1399-2	Banner 2	11.2	COS.8	21		150	93	20	50	1 [Dairy]	22	246.4	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	165	ST1	43	7	2	7	-33	-84
1399-3	Banner 3	17.1	AGE	5		40	40	50	150	1 [Dairy]	22	376	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-8	-115
1399-5B	Banner 5a	5.2	GIT	5		220	220	10	20	1 [Dairy]	22	114	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC1	92	0	0	200	TD1	76	0	0	9	-36	-113
1399-5A	Banner 5b	18.3	AGT.5	5		150	150	10	150	1 [Dairy]	22	403	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-36	-159
1399-6	Banner 6	4.8	AGT.5	5		150	150	30	150	1 [Dairy]	22	106	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-16	-159
1399-7	Banner 7	4.1	GIT	5		220	220	10	60	1 [Dairy]	22	90	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC1	92	0	0	200	TD1	76	0	0	9	-36	-73
1399-9	Banner 9	11	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
2532-2	Barlow 1	3	GIT	5		220	220	10	60	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	-30	-30
2532-3	Barlow 2	9	AGE	5		40	40	0	150	4 [MHWW]	100	900	0	4	30	36	1 [Dairy]	0	0	0	0	0	300	BC2	0	0	174	200	ST4	24	12	16	13	-42	-76
2532-4	Barlow 3	6	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
2532-5	Barlow 4	5	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
2532-5	Barlow 5	6	GIT	6		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
2532-1	Barlow Flat	39.1	ALT.6	6		150	150	0	75	4 [MHWW]	100	3910	0	4	30	36	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	127	-30	-137
1531-4	Broe 1&2	22.8	COG.6	25		180	143	20	80	1 [Dairy]	22	502	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	165	ST1	43	7	2	57	-33	-54
1531-1	Broe 3	21	COG.6	25		180	124	20	80	1 [Dairy]	22	462	0	43	46	133	3 [Heifer]	9	189	13	16	55	0	BC3	0	0	0	165	ST1	43	7	2	25	-49	-109
1529-1	Broe 4	26	SOY.1	5		168	133	20	60	1 [Dairy]	23	598	0	45	48	139	1 [Dairy]	0	0	0	0	0	125	BC2	0	0	73	33	ST2	2	6	2	85	-34	-153
1531-3	Broe 6	10.2	GIT	6		220	220	0	60	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	-40	-30
0-0	Broe 7	16	COG.2	25		180	102	70	80	1 [Dairy]	22	352	0	43	46	133	3 [Heifer]	25	400	36	45	153	0	BC3	0	0	0	90	ST1	23	4	1	-0	-25	-207
0-0	Broe 10	22.3	COG.4	22		156	115	20	80	1 [Dairy]	22	491	0	43	46	133	1 [Dairy]	2	45	4	4	12	125	BC3	0	0	76	165	ST1	43	7	2	25	-37	-143
1811-1	Burton 1	9.9	AGT.1	6		40	40	0	150	1 [Dairy]	20	198	0	39	42	121	1 [Dairy]	0	0	0	0	0	250	BC2	0	0	145	0	0	0	0	0	1	-42	-116

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)			Primary Manure				Secondary Manure				Fertilizer Use				Net Nutrients (lbs) (Red indicates surplus)														
				POTENTIAL YIELD	ACTUAL YIELD				MANURE TYPE	MANURE NUTRIENT (LBS PER ACRE)	N	P205	K20	MANURE TYPE 2	MANURE NUTRIENT (LBS PER ACRE) 2	N	P205	K20	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C													
									Amm.-N	Organic N				MANURE TONS/AC	MANURE TONS/AC 2																				
1811-0	Burton 2	4	COG.8	19		132	82	70	80	3 [Heifer]	22	88	0	32	40	135	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	165	ST1	43	7	2	8	24	-133
1811-8	Burton 3a	6	COG.8	25		180	145	70	80	3 [Heifer]	22	132	0	32	40	135	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	165	ST1	43	7	2	70	24	-133
1811-8	Burton 3b	9	Idle	0		114	65	0	#####	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	0	
1811-2A	Burton 4	8	COG.8	19		132	82	40	80	3 [Heifer]	22	176	0	32	40	135	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	165	ST1	43	7	2	8	-6	-133
1811-2B	Burton 5	21.2	COG.8	22		156	117	20	50	3 [Heifer]	22	466	0	32	40	135	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	165	ST1	43	7	2	43	-26	-86
1650-5	Denny 1	11	AGT.2	6		60	60	0	150	1 [Dairy]	20	220	0	39	42	121	1 [Dairy]	0	0	0	0	0	350	BC7	18	0	154	0	0	0	0	0	3	-42	-125
1650-4	Denny 2	12.2	AGE	6		40	40	0	150	1 [Dairy]	15	183	0	29	32	90	1 [Dairy]	16	195	31	34	96	200	BC2	0	0	116	100	ST4	12	6	8	-33	-71	-161
1650-3	Denny 3	7.9	AGE	6		40	40	0	75	1 [Dairy]	15	119	0	29	32	90	1 [Dairy]	12	95	24	25	72	200	BC2	0	0	116	200	ST4	24	12	16	-37	-69	-220
3650-1	Eggles-ton 1	15	COS.6	20		144	86	20	50	1 [Dairy]	22	330	0	43	46	133	1 [Dairy]	16	240	31	34	96	0	BC3	0	0	0	33	ST2	2	6	2	9	-65	-181
1651-6	Eichler 1	4.9	AGT.3	6		80	80	0	150	1 [Dairy]	22	108	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	17	-46	-159
1651-4	Eichler 2	14.9	AGE	6		40	40	0	75	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	20	298	39	42	121	200	BC2	0	0	116	200	ST4	24	12	16	-23	-54	-178
1651-1	Eichler 3	10.6	ALT.6	6		150	150	10	150	1 [Dairy]	22	233	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-36	-159
1651-2&3	Eichler 4	10.7	AGT.3	6		80	80	0	200	1 [Dairy]	22	235	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	17	-46	-109
1651-5	Eichler 5	11.9	COS.1	22		156	30	20	80	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	0	0	0	0	0	250	BC3	0	0	153	110	ST1	29	4	1	1	16	-74
1651-7	Eichler 6	6.2	AGE	6		40	40	0	150	1 [Dairy]	22	136	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-58	-115
3075-1	Foster 1	8.1	COS.4	22		156	101	20	80	1 [Dairy]	22	178	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	6	-34	-131
3075-2A	Foster 2	6.7	AGE	6		40	40	10	150	1 [Dairy]	22	147	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-48	-115
3075-2B	Foster 3	9.8	AGE	6		40	40	10	200	1 [Dairy]	22	216	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-48	-65
0-0	German 1	3.1	AGE	4		40	40	0	150	1 [Dairy]	22	68	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-58	-115
0-0	German 2	6.1	AGE	3		40	40	10	150	1 [Dairy]	22	134	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-48	-115
0-0	German 3	2.9	AGE	3		40	40	30	150	1 [Dairy]	22	64	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-28	-115
1818-11A8	Green	19.6	AGT.1	6		40	40	0	75	1 [Dairy]	20	392	0	39	42	121	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	0	0	0	0	0	1	-42	-162
1818-11A8	Green	15.8	AGT.1	6		40	40	0	150	1 [Dairy]	20	316	0	39	42	121	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	0	0	0	0	0	1	-42	-87
1818-12	Green	16	COS.2	22		156	76	20	80	3 [Heifer]	15	240	0	22	27	92	1 [Dairy]	27	432	53	57	163	0	BC3	0	0	0	50	ST2	4	9	3	-2	-72	-177
1818-12	Green	13.9	COS.2	22		156	77	20	80	3 [Heifer]	22	306	0	32	40</td																				

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)	Primary Manure				Secondary Manure				Fertilizer Use				Net Nutrients (lbs) (Red indicates surplus)																
				POTENTIAL YIELD	ACTUAL YIELD		MANURE NUTRIENT (LBS PER ACRE)			MANURE NUTRIENT (LBS PER ACRE) 2			Broadcast Fertilizer	Starter Fertilizer	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A													
							Amm.-N	Organic N	P205	K20	MANURE TYPE 2	MANURE TONS/AC 2	TONS/ FIELD 2																						
1818-13A	Green	15.4	COS.2	22		156	78	20	80	3 [Heifer]	22	339	0	32	40	135	1 [Dairy]	16	246	31	34	96	0	BC3	0	0	0	50	ST2	4	9	3	11	-62	-154
1818-13B	Green	17	COS.2	24		168	87	40	80	3 [Heifer]	22	374	0	32	40	135	1 [Dairy]	18	306	35	38	109	0	BC3	0	0	0	50	ST1	13	2	1	7	-39	-164
1818-17	Green	3.5	COS.2	25		180	110	70	80	3 [Heifer]	22	77	0	32	40	135	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	27	22	-133
1818-15&1	Green	6.1	COS.8	24		168	127	20	80	3 [Heifer]	22	134	0	32	40	135	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	44	-28	-133
1818-1	Green	5.7	COS.5	22		156	110	20	80	1 [Dairy]	15	86	0	29	32	90	1 [Dairy]	24	137	47	50	145	0	BC3	0	0	0	120	ST1	31	5	1	2	-67	-156
1819-0	Green 10	10	AGT.4	6		100	100	0	150	1 [Dairy]	22	220	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	37	-46	-159
1819-2E	Green 11	6.9	AGT.3	6		80	80	0	150	1 [Dairy]	22	152	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	17	-46	-159
1819-0	Green 12	13.1	AGT.4	6		100	100	0	15	1 [Dairy]	22	288	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	37	-46	-294
1819-0	Green 13	4.5	COG.6	22		156	116	20	50	1 [Dairy]	22	99	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	200	ST1	52	8	2	20	-34	-85
1819-8C	Green 14	7	COS.8	24		168	117	20	50	1 [Dairy]	22	154	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	200	ST1	52	8	2	22	-34	-85
1819-8B	Green 15	6.6	COS.8	24		168	117	20	25	1 [Dairy]	22	145	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	200	ST1	52	8	2	22	-34	-110
1819-8A	Green 16	6.3	COS.8	24		168	117	40	80	1 [Dairy]	22	139	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	200	ST1	52	8	2	22	-14	-55
1819-4	Green 17	8	AGT.7	6		150	150	0	150	1 [Dairy]	22	176	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-46	-159
1819-3	Green 18	13.5	COG.8	22		156	116	20	50	1 [Dairy]	22	297	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	BC3	0	0	0	200	ST1	52	8	2	20	-34	-85
1818-9	Green 19	2.7	COG.8	24		168	126	40	80	1 [Dairy]	22	59	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	-14	-131
1818-10	Green 20	4.4	COG.6	24		168	126	40	80	1 [Dairy]	22	97	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	-14	-131
1818-0	Green 21	3.9	COG.4	24		168	126	40	80	1 [Dairy]	22	86	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	-14	-131
1727-1	Hansen 1	4.5	AGE	6		40	40	0	15	1 [Dairy]	22	99	0	43	46	133	1 [Dairy]	0	0	0	0	0	200	BC2	0	0	116	200	ST4	24	12	16	-27	-58	-250
1727-2&3	Hansen 2	8.7	COG.1	25		174	30	20	80	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	0	0	0	0	0	300	BC3	0	0	183	100	ST1	26	4	1	4	16	-104
1727-4	Hansen 3	8.6	AGT.4	6		100	100	0	150	1 [Dairy]	22	189	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	37	-46	-159
1727-5	Hansen 4	6.4	AGT.5	6		150	150	0	150	1 [Dairy]	22	141	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-46	-159
1727-14	Hansen 5	16.5	COG.1	22		156	30	40	80	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	0	0	0	0	0	250	BC3	0	0	153	100	ST1	26	4	1	4	36	-74
1727-9A	Hansen 6	20	COG.8	24		168	126	20	80	1 [Dairy]	22	440	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	-34	-131
1727-11&1	Hansen 7	12	COG.8	25		180	143	40	80	1 [Dairy]	22	264	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0									

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)			Primary Manure				Secondary Manure				Fertilizer Use				Net Nutrients (lbs) (Red indicates surplus)																
				POTENTIAL YIELD	ACTUAL YIELD				MANURE TYPE	MANURE NUTRIENT (LBS PER ACRE)	N	P205	K20	MANURE TYPE 2	MANURE NUTRIENT (LBS PER ACRE) 2	N	P205	K20	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C															
									Amm.-N	Organic N				MANURE TONS/AC	MANURE TONS/AC 2																						
1518-1	Hinkley 1	28.6	COG.7	25		180	126	20	80	1 [Dairy]	22	629	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	200	ST1	52	8	2	31	-34	-55					
1518-2	Hinkley 2	25	SOY.1	5		180	150	20	60	1 [Dairy]	23	575	0	45	48	139	1 [Dairy]	0	0	0	0	0	0	0	125	BC2	0	0	73	33	ST2	2	6	2	103	-34	-153
1518-0	Hinkley 2a	7	SOY.1	5		180	150	50	60	1 [Dairy]	23	161	0	45	48	139	1 [Dairy]	0	0	0	0	0	0	0	125	BC2	0	0	73	33	ST2	2	6	2	103	-4	-153
1518-3	Hinkley 3	11.5	SOY.1	5		180	150	20	0	1 [Dairy]	0	0	0	0	0	0	3 [Heifer]	23	265	33	41	141	0	BC2	0	0	0	33	ST2	2	6	2	115	-27	-142		
1518-4A	Hinkley 4a	26.2	COG.6	25		180	143	40	80	1 [Dairy]	22	576	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	48	-14	-131
1528-4B	Hinkley 4b	10.8	GIT	6		220	220	0	60	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	-40	-30
1518-6	Hinkley 5	3.1	SOY.1	5		180	150	20	20	1 [Dairy]	23	71	0	45	48	139	1 [Dairy]	0	0	0	0	0	0	0	0	BC2	0	0	0	33	ST2	2	6	2	103	-34	-120
1528-5	Hinkley barnyard	3.8	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
2340-1&2	Home Flat	12.5	COS.8	22		156	116	20	25	1 [Dairy]	22	275	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	0	BC3	0	0	0	200	ST1	52	8	2	20	-34	-110
2991-1	HVF 1	30.1	AGT.2	6		60	60	0	15	1 [Dairy]	22	662	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	300	BC7	15	0	132	0	0	0	0	0	2	-46	-250
2991-2	HVF 2	26.1	COS.6	22		156	120	0	0	3 [Heifer]	12	313	0	17	22	73	4 [MHWW]	18	470	1	5	6	0	BC3	0	0	0	165	ST3	50	0	0	52	-27	-80		
2991-3	HVF 3	7.3	AGT.2	6		60	60	0	0	1 [Dairy]	0	0	0	0	0	0	4 [MHWW]	22	161	1	7	8	300	BC7	15	0	132	0	0	0	0	0	44	-7	-140		
2991-4	HVF 4	8.5	COG.8	22		156	118	0	0	2 [Dry Cow]	12	102	0	25	28	108	4 [MHWW]	74	629	3	22	27	0	BC3	0	0	0	165	ST3	50	0	0	41	-50	-135		
2991-5	HVF 5	16.9	COS.3	22		156	101	20	50	2 [Dry Cow]	22	372	0	45	51	198	1 [Dairy]	0	0	0	0	0	0	0	0	BC3	0	0	0	165	ST1	43	7	2	13	-37	-150
2991-6	HVF 6	32	COS.8	22		156	100	20	80	2 [Dry Cow]	22	704	0	45	51	198	4 [MHWW]	38	1216	1	11	14	0	BC3	0	0	0	200	ST1	52	8	2	1	-50	-134		
2991-7A	HVF 7	32	COS.2	22		156	89	20	80	4 [MHWW]	22	704	0	1	7	8	1 [Dairy]	0	0	0	0	0	0	0	250	BC3	0	0	153	200	ST1	52	8	2	36	5	-82
2991-8	HVF 8	10	ALT.6	6		150	150	0	150	1 [Dairy]	22	220	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-46	-159
2991-9	HVF 9	2.1	GIT	5		220	220	0	60	2 [Dry Cow]	22	46	0	45	51	198	1 [Dairy]	0	0	0	0	0	0	0	200	BC1	92	0	0	200	TD1	76	0	0	7	-51	-138
2991-10	HVF 10	5.9	COS.2	20		144	69	20	80	4 [MHWW]	22	130	0	1	7	8	1 [Dairy]	0	0	0	0	0	0	0	250	BC3	0	0	153	200	ST1	52	8	2	16	5	-82
2991-11&12	HVF 11&12	28.6	COS.8	21		150	113	20	80	4 [MHWW]	22	629	0	1	7	8	3 [Heifer]	8	229	11	14	49	200	BC3	0	0	122	200	ST1	52	8	2	49	-9	-101		
2991-13	HVF 13	5	AGT.5	5		150	150	0	150	1 [Dairy]	22	110	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	87	-46	-159
2991-14	HVF 14	6.3	GIT	4		220	220	0	60	2 [Dry Cow]	22	139	0	45	51	198	1 [Dairy]	0	0	0	0	0	0	0	200	BC1	92	0	0	200	TD1	76	0	0	7	-51	-138
2991-15	HVF 15	9.5	AGT.4	5		100	100	0	150	1 [Dairy]	22	209	0	43	46	133	1 [Dairy]	0	0	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	37	-46	-159
2991-16	HVF 16	12.5	GIT	5		220	220	0	60	1 [Dairy]	0	0	0	0	0	0	4 [MHWW]	16	200	1	5	6	200	BC1</td													

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)			Primary Manure				Secondary Manure				Fertilizer Use						Net Nutrients (lbs) (Red indicates surplus)									
				POTENTIAL YIELD	ACTUAL YIELD				MANURE TYPE	MANURE NUTRIENT (LBS PER ACRE)	Amm.-N	Organic N	P205	K20	MANURE TYPE 2	MANURE NUTRIENT (LBS PER ACRE) 2	Organic N	P205	K20	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C					
2346-1	Larson 2	5.6	GIT	6		220	220	30	60	2 [Dry Cow]	22	123	0	45	51	198	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	7	-21	-138
2346-3	Larson 3	28.7	AGE	5		40	40	50	150	1 [Dairy]	22	631	0	43	46	133	1 [Dairy]	0	0	0	BC4	0	30	120	200	ST4	24	12	16	-27	-38	-119
0	Larson 4	10.3	GIT	5		220	220	50	60	2 [Dry Cow]	22	227	0	45	51	198	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	7	-1	-138
2341-6	Mark 6	2	AGT.4	5		100	100	0	150	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC4	0	50	200	0	0	0	0	0	100	-50	-50
2341-7	Mark 7	3.4	AGT.4	6		100	100	0	150	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC4	0	50	200	0	0	0	0	0	100	-50	-50
2341-2	Mark Flat	10	AGT.2	6		60	60	50	150	1 [Dairy]	20	200	0	39	42	121	1 [Dairy]	0	0	0	BC7	20	0	176	0	0	0	0	0	1	8	-147
2341-4	Otten	12	GIT	6		220	220	10	20	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	-30	-70
1650-2&6	Martindale	8.2	AGT.2	6		60	60	0	200	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC4	0	50	200	0	0	0	0	0	60	-50	0
2344-1BA	Mike 1	5.7	GIT	5		220	220	30	60	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	-10	-30
2344-1B	Mike 2	6	GIT	5		220	220	50	60	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	10	-30
2344-1A	Mike 3	4.2	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
0-0	Mt. Vision 1	19.5	COG.3	25		180	120	60	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC3	0	0	183	200	ST1	52	8	2	68	52	-105
0-0	Mt. Vision 2	24.9	COG.3	24		168	111	40	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC3	0	0	183	200	ST1	52	8	2	59	32	-105
3370-3	Mullane	15.8	GIT	6		220	220	0	60	3 [Heifer]	22	348	0	32	40	135	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	20	-40	-75
0-0	Osterout	12.2	COS.6	25		180	134	20	50	1 [Dairy]	22	268	0	43	46	133	1 [Dairy]	25	305	49	BC3	0	0	0	150	ST1	39	6	2	3	-85	-235
3121-2C&I	Palmatier 1	15	GIT	4		220	220	30	80	3 [Heifer]	22	330	0	32	40	135	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	20	-10	-55
3121-2A&E	Palmatier 2	15	COS.1	20		144	30	40	80	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	0	0	0	BC3	0	0	183	100	ST1	26	4	1	4	36	-104
3121-2E	Palmatier 3	8	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
1518-1A&C	Pier 1	8	COG.6	20		144	91	40	80	2 [Dry Cow]	22	176	0	45	51	198	1 [Dairy]	0	0	0	BC3	0	0	0	165	ST1	43	7	2	3	-17	-120
1518-2	Pier 2	10	COS.6	20		144	91	70	80	2 [Dry Cow]	22	220	0	45	51	198	1 [Dairy]	0	0	0	BC3	0	0	0	165	ST1	43	7	2	3	13	-120
1518-1B	Pier 3	7	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
1939-2	Prager 1	10.7	GIT	5		220	220	50	80	3 [Heifer]	22	235	0	32	40	135	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	20	10	-55
1939-4	Prager 2	11.3	GIT	5		220	220	50	60	3 [Heifer]	22	249	0	32	40	135	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	20	10	-75
1939-5B	Prager 3	9.4	GIT	5		220	220	50	60	3 [Heifer]	22	207	0	32	40	135	1 [Dairy]	0	0	0	BC1	92	0	0	200	TD1	76	0	0	20	10	-75
1939-1	Prager 4	10.4	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
1939-3	Prager 5	8.5	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135	40	90	200	TD1	76	0	0	9	10	-10
1939-5A	Prager Lfield	8.6	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	BC6	135										

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)	Primary Manure				Secondary Manure				Fertilizer Use				Net Nutrients (lbs) (Red indicates surplus)																
				POTENTIAL YIELD	ACTUAL YIELD		N	P205	K20	MANURE NUTRIENT (LBS PER ACRE)		MANURE NUTRIENT (LBS PER ACRE) 2		Broadcast Fertilizer	Starter Fertilizer	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C												
							MANURE TYPE	MANURE TONS/AC	TONS/ FIELD	Amm.-N	Organic N	P205	K20	TONS/ FIELD 2	MANURE TONS/AC 2	TONS/ FIELD 2	Organic N	P205	K20	TONS/ FIELD	MANURE TONS/AC	TONS/ FIELD 2													
0-0	Rumple Flat	12.5	Idle	1		108	57	0	#####	1 [Dairy]	0	0	0	0	0	1 [Dairy]	0	0	0	0	0	0	0	0	0	57	0	0							
2485-1	Scott 1	32	GIT	5		220	220	50	80	7 [None]	0	0	0	0	0	7 [None]	0	0	0	0	0	500	BC6	135	40	90	200	TD1	76	0	0	9	10	-10	
1916-9	Schmidt 1	10.9	COS.4	22		156	116	40	80	1 [Dairy]	22	240	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	20	-14	-131
1916-9	Schmidt 2	20.7	COS.4	24		168	126	60	80	1 [Dairy]	22	455	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	6	-131
1916-10,13	Schmidt 3	11.2	COS.4	24		168	126	70	80	1 [Dairy]	22	246	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	16	-131
1916-3,11	Schmidt 4	17	COS.4	24		168	126	70	80	1 [Dairy]	22	374	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	16	-131
0	Schmidt 5	7.1	COG.4	22		156	116	70	80	1 [Dairy]	22	156	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	20	16	-131
1916-1,2	Schmidt 6	10.5	COG.4	22		156	116	20	80	1 [Dairy]	22	231	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	20	-34	-131
1917-1	Schmidt 7	6.5	COG.4	22		156	101	70	80	1 [Dairy]	22	143	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	6	16	-131
T2655-3a	Solomon 1	12	COG.3	23		162	102	20	80	1 [Dairy]	22	264	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	7	-34	-131
T2655-1a	Solomon 2a	14	SOY.1	6		156	116	50	60	1 [Dairy]	23	322	0	45	48	139	1 [Dairy]	0	0	0	0	0	125	BC2	0	0	73	33	ST2	2	6	2	68	-4	-153
T2655-1b	Solomon 2b	6	SOY.1	6		156	116	50	60	1 [Dairy]	23	138	0	45	48	139	1 [Dairy]	0	0	0	0	0	125	BC2	0	0	73	33	ST2	2	6	2	68	-4	-153
T2655-1c	Solomon 3	12	COG.5	24		168	126	60	80	1 [Dairy]	22	264	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	30	6	-131
T2655-1d	Solomon 4	9	COG.3	23		162	102	60	80	1 [Dairy]	22	198	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	7	6	-131
T2655-1e	Solomon 5	6	AGT.3	6		80	80	50	150	1 [Dairy]	22	132	0	43	46	133	1 [Dairy]	0	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	17	4	-159
T2655-3e	Solomon 6	5	COG.3	23		162	102	70	80	1 [Dairy]	22	110	0	43	46	133	1 [Dairy]	0	0	0	0	0	125	BC3	0	0	76	200	ST1	52	8	2	7	16	-131
T2655-3c,	Solomon 7,8	10.7	COG.1	23		162	30	40	80	1 [Dairy]	0	0	0	0	0	1 [Dairy]	0	0	0	0	0	300	BC3	0	0	183	110	ST1	29	4	1	1	36	-104	
T2655-3b	Solomon 9	10	AGT.2	6		60	60	50	150	1 [Dairy]	22	220	0	43	46	133	1 [Dairy]	0	0	0	0	0	300	BC7	15	0	132	0	0	0	0	0	2	4	-115
1650-1	Tambasco	19.7	AGE	6		40	40	0	75	1 [Dairy]	0	0	0	0	0	1 [Dairy]	23	453	45	48	139	150	BC2	0	0	87	200	ST4	24	12	16	-29	-60	-167	
3129-14&3	Twomey 1&5	50	COS.8	24		168	124	0	50	1 [Dairy]	18	900	0	35	38	109	1 [Dairy]	10	500	20	21	60	0	BC3	0	0	0	200	ST1	52	8	2	17	-67	-121
3128-1	Twomey 2	14.4	CC.1	1		156	123	10	20	1 [Dairy]	0	0	0	0	0	1 [Dairy]	29	410	56	60	172	150	BC1	69	0	0	0	0	0	0	0	0	-2	-50	-152
3129-0	Twomey 3	6	AGT.2	6		60	60	0	150	1 [Dairy]	22	132	0	43	46	133	1 [Dairy]	0	0	0	0	0	300	BC7	15	0	132	0	0	0	0	0	2	-46	-115
3129-10	Twomey 4	12	AGT.2	6		60	60	0	150	1 [Dairy]	22	264	0	43	46	133	1 [Dairy]	0	0	0	0	0	300	BC7	15	0	132	0	0	0	0	0	2	-46	-115
3129-0	Twomey 6	6	AGT.2	5		60	60	0	150	1 [Dairy]	22	132	0	43	46	133	1 [Dairy]	0	0	0															

Table 5 Fertility Calculations

FIELD ID	Map ID	ACRES	CROP CODE	TONS/ACRE		Nutrients Recommended (LBS/AC)	Primary Manure				Secondary Manure				Fertilizer Use				Net Nutrients (lbs) (Red indicates surplus)																
				POTENTIAL YIELD	ACTUAL YIELD		N	P205	K20	MANURE NUTRIENT (LBS PER ACRE)			MANURE NUTRIENT (LBS PER ACRE) 2	MANURE TONS/AC 2	TONS/ FIELD 2	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C	LBS/AC ANALYSIS TYPE	N LBS./A	P205 LBS./A	K20 LBS./A/C												
							AMM. N	ORGANIC N	P205	K20	AMM. N	ORGANIC N	P205	K20	AMM. N	ORGANIC N	P205	K20	AMM. N	ORGANIC N	P205	K20													
0-0	Woodb ull	12	AGT.4	6		100	100	0	150	1 [Dairy]	22	264	0	43	46	133	1 [Dairy]	0	0	0	0	400	BC7	20	0	176	0	0	0	0	0	37	-46	-159	
3649-1	Young 1	17.2	CC.1	1		144	99	40	40	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	0	0	0	0	150	BC1	69	0	0	0	0	0	0	0	0	30	40	40
3649-2	Young 2	13.2	COG.8	21		150	89	20	50	1 [Dairy]	0	0	0	0	0	0	1 [Dairy]	32	422	63	67	193	0	BC3	0	0	0	100	ST1	26	4	1	1	-51	-144
0-0	VTA	0	GIT	0		220	220	0	0	7 [None]	0	0	0	0	0	0	7 [None]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	0	0

1936.8

35522.9 tons
8,508,479 gallons

8823.7
#####

The Net Nutrients column reflects a need or oversupply of nutrients based on manure and fertilizer inputs. 'In the red' means there is an oversupply of that nutrient per Cornell Guidelines. Nitrate-nitrogen will be lost each year but organic N will remain and is calculated into the program. Phosphorus and Potassium should increase over time if rates are continually loaded above crop removal; crop removal rates are greater than what Cornell Guidelines recommend as noted in Table 4, Nutrient Budget. Keep Records of Yields to justify higher nutrient loading.

E. NUTRIENT MANAGEMENT SUMMARY

Table 6, Manure Management Summary, is designed to show all manure applications that have been recommended for the year. In general, the Primary Application is planned such that manure can be spring applied and may be incorporated. If incorporated, as planned, the ammonia N contribution is accounted for. The Secondary Application is normally planned during times of the year when manure Ammonia N will not be conserved. **Table 6a, Fertilizer Management Summary**, accounts for fertilizer recommendations assuming all manure from Table 6 is applied as recommended. A total number of loads has been included to help determine if nutrient demands will be met with the recommended fertilizer rates. If total loads applied is less than recommended or more dilute manure sources are used, nutrients may remain deficient. When manure is not applied as recommended, more fertilizer may be needed to meet crop production goals. When more manure is applied than recommended, over application has occurred and commercial fertilizer can be reduced. Over application without prior discussions with your planner to determine P Index criteria can be considered a non-compliance issue.

Refer to the **Fertilizer Blend** sheet, **Table 7**, to determine the total amount of fertilizer that has been recommended for a particular analysis. This sheet can be used as a shopping list for acquiring the best fertilizer prices from several vendors. **Lime Recommendations** can be found on Table 6a based on target pH of 7.0. In some cases, extreme pH modifications are not necessary; more moderate rates are found on **Table 8**.

Notes:

The Nutrient Management Plan (NMP) was completed using the NYS P-Index Calculator to meet current CAFO guidelines, NY312, NY590, and NY633. Evaluations to minimize ground water contamination with regard to nitrogen leaching have also been completed using the Nitrogen Leaching Index (NLI).

Manure was the primary nutrient recommended for the purposes of crop production. Manure nutrients will be recycled through vegetative growth. Commercial fertilizer was recommended to supplement manure to achieve assigned yield potentials.

Allocations are greater than what has been generated resulting in a need to revise fertilizer recommendations as the season progresses. Record keeping will be imperative to document the differences to be applied.

Be sure to observe setback distances from wells and continuous flowing water sources (100 ft); concentrated flows (20 ft).

Any additional tracts of land or fields within tracts already operated but not yet inventoried cannot have manure applications. Fields are to be sampled and inventoried prior to manure applications.

Fields listed on Table 6 may have 2 allocations of manure assigned. Application 2 details the amount of manure that has already been applied. Manure was then allocated to the furthest extent possible to meet objectives within Application 1. Manure will not be incorporated at this time.

Previous years:

CORN

Corn starter was used to give the corn a good start. Liquid fertilizer was recommended to supply 30 lbs of N and 5-6 lbs of P per acre. Nitan is planned to be applied 2" x 2" and a pop up starter at 2.5 gpa (7-17-5). The combination of nutrients would be equivalent to 26-4-1. Potassium recommendations were not supplied at this time based on cost. Recommendations can be provided upon request. Over-application of K is acceptable if management wished to fully meet crop K requirements. A middle of the road K application would be 150 lbs per acre of potash on corn silage fields. Applications to corn grain fields can also be 150 lbs per acre but could be completed every other year.

Sul-Po-Mag (KMS) may be recommended in combination with potash to supply Mg to the crop during the growing season. Many of the fields that need the KMS-Potash Blend should get about 300 lbs per acre. KMS can be eliminated and 200 lbs per acre of potash can be supplemented instead, if High Mag (dolomitic) lime is applied to modify pH.

First year corn should not get any manure unless no starter fertilizer will be used, or, a fall application was made to promote vegetative regrowth without killing the sod. The farm could also apply manure in the spring to a first year corn field if the field is harvested first, then the field is planted to corn. In either of the last 2 scenarios the nitrogen in the manure will be utilized by the vegetative growth of the grass. If no manure is applied only 30-32lbs of N shall be applied as starter fertilizer; fields will not get any additional N without first testing the plant should it appear N deficient. HVF 7 will have 1st cutting harvested then planted as no-till corn. Field can get no manure due to high P-Index nor starter P; just use 9gpa nitan.

Several fields (316ac) have supplemental N recommended as Sidedress N at varying rates. These fields could have commercial N applications eliminated if the manure was incorporated. Prior to doing so, management will need to contact the planner to determine if a lower manure rate may then be necessary as N requirements will be more quickly met.

Fields receiving manure should have sidedress N requirements determined by testing the soil with a PSNT/ISNT test per NLI guidelines. Corn should be about 6" tall when tested. Management is planning to use drop tube as necessary to supply additional N to meet crop requirements. Recommendations were provided for Side dress N for planning purchases of UAN. Urea, may be used instead if management has the time and is not limited by labor issues. If using urea the pounds of material needed will be less since Urea is more concentrated than UAN. For every 100 lbs of UAN (Nitan) recommended you will only need 70 lbs of urea. To further improve the accuracy of the applied N rates, complete a stalk nitrate sample within one week of harvest.

Yield information must be recorded for each field. Higher yields result in higher nutrient requirements and higher manure application rates.

HAY

Hay fields were provided recommendations balanced around manure applications as well. Boron should be applied annually at about 1 lb. per acre. Depending on manure applications different broadcast fertilizer recommendations were made based on crop removal rate. Alfalfa grass mixes were provided a recommendation with some N from ammonium sulfate (AMS). If fertilizer can be applied prior to 1st cutting, the small amount of N seems to kick start the alfalfa resulting in a higher concentration of alfalfa in the first cutting.

Potash has been recommended along with Boron. At least 1lb of B per acre should be applied annually. The potash rates vary based on manure rates and based on fertility levels in the soil. If fertility was high, no potassium may have been recommended. If fertility was low, potash was recommended at levels that will help meet crop removal. In general, 200 to 280lbs of K area supplied per acre from manure and potash.

Fertilizer applications on grass hay fields should be split applied if greater than 250 lbs per acre. Apply at green up in the spring and then after 1st and 2nd cutting. Rates of second application will be from 100 to 200 lbs per acre.

Cereal Crops

Manure was recommended as the source of starter fertilizer to provide P and K for the season. To boost straw yields consider 60 lbs N per acre urea early spring at green up. Do not exceed rates as too much N without proper K levels can result in excessive lodging. The surplus of N is a result of the anticipated manure application after the field is harvested. Without anticipating the post harvest manure application, N would be lacking.

Soybeans

Manure was recommended to get the beans started as fertility levels were in pretty good shape. Starter fertilizer 7-17-5 was recommended at a rate of 100 lbs per acre. Be sure to inoculate the beans to ensure good nodulation.

New Seeding

Manure was recommended to get the crop started. No commercial fertilizer was recommended as a starter per previous management strategies. A potash topdress with Boron is recommended after 2nd cut to boost root reserves. The manure in some cases is slightly greater than allowed for a stand-alone seeding; however, when planted with a companion crop, like oats, the N is needed to promote lush vegetative growth. The standard recommendation for seedings with a companion crop is 30lbs more N than what is currently recommended.

Pastures

The heifer pasture is 38.2 acres and can sustain about 193 animal units for about 4 months annually before depositing more manure than expected crop removal. Acreage should increase or limit pasture use. The dry cows have access to 16.8 acres. For the number of animals present, only 4 months of pasturing should be considered to prevent excessive nutrient deposition.

Exported Manure

All bedded pack manure is exported to 3different entities at this time. The three entities are;

1. Art Kiser, Middlefield, NY
2. Mr. Hiser, Milford Center, NY
3. Bob, the pumpkin guy. Milford, NY
4. Mike's Buddy, Milford, NY
5. Seward Sand and Gravel, Oneonta, NY

The land owner receiving the manure at these sites must be given a copy of the manure analysis for the source being delivered. Application rates are not to exceed agronomic requirements, nor should applications cause a water quality violation. Refer to and provide a copy of the "Export Manure" narrative found in the O&M section of the CNMP.

Specifics for 2012:

Corn

1. Manure generally recommended at 22tpa unless already applied per records.
2. Pre-plant broadcast K has been recommended to help maintain K levels by meeting crop removal rates if %K levels are considered to be low (<2% base saturation) or manure rates do not supplement enough K to maintain K levels.
 - a. Rates range from 0 to 300lbs potash per acre.
 - b. lbs K applied from all sources range from 85lbs to 211lbs when K levels were low.
 - c. When K levels were good to optimum, no BC potash was applied but lbs K applied from manure still ranged from 80 to 285lbs.
 - d. Crop K removal levels are about 180lbs per acre for 20ton silage.
3. A hybrid analysis has been used to account for nutrients added (26-4-1) based on about 2.5gpa Riser and 10gpa Nitan
4. Depending on the amount of manure applied and the yield potential starter rates have been varied.
5. In all cases RisR can be used at 2.5 gpa. N rates will have to be varied. (refer to the attached CY2012 Fertilizer Recommendations table)
 - a. N applications must be set 2x2 from the seed to prevent root injury at higher rates.

- b. Nitan starter Rates range from 0 to 17gpa
- 6. Additional N will need to be applied as side dress since manure is not being incorporated (see CY2012 Fertilizer Recommendations table). If incorporating, only incorporate for fields where side dress was recommended.

Soybean

- 1. Manure recommended at 1.5ld per acre unless already applied (Hinkley 3)
- 2. RisR recommended at 3gpa.
- 3. Potash recommended at 125lbs per acre with B except for Hinkley 3 and 5. K levels are in good shape and do not require additional K. Solomon 2b needs lime (5.8pH)...could use pelletized lime if available.

Alfalfa –New Seedings with Oats or Peas and Oats

- 1. Manure recommended at 22tpa unless already applied per records.
- 2. Recommended 200lbs 12-6-8 with AMS and Sul-Po-Mag (KMS) as starter to supply extra N for companion crop production
- 3. Follow up with 200lbs potash and B @1lb/ac, in most cases; Barlow 2 should get 300lbs since K is low, Tambasco should get 150lbs since K is high. Larson 3 should be 300lbs 0-10-40-B since P is also low.

Alfalfa –Established

- 1. Manure allocated at 22tpa...
- 2. Older stands can get some N early season to boost production. The BC7 blend (5-0-44-B) was set up to account for 2 applications of fertilizer due to computer program limitations. In reality the following will give the same inputs as 400lbs of the 5-0-44-B:
 - a. Apply 9-0-31-11S-4B @ 225lbs per acre at green up.
 - b. Topdress after 2nd or 3rd cut with 175lbs/ac potash
- 3. New stands of alfalfa should not get additional N for compliance purposes. Just K was recommended at varying rates along with 1lb B per acre.
- 4. Alfalfa fields without manure need to have 0-10-40-B.

Hay Fields

- 1. Only apply additional N if timely harvest is possible. Early N will dramatically boost yields and quality if harvested on time.
- 2. Manure recommended at 22tpa or none at all..
- 3. Where no manure applied or none recommended apply
 - a. 200lbs per acre 38-0-0-7.5S at green up
 - b. Split apply 500lbs per acre 27-8-18
- 4. Where manure is applied as it is recommended apply
 - a. 200lbs per acre 38-0-0-7.5S at green up
 - b. Split apply 200lbs per acre urea as needed to boost yields

Manure Pile Areas

The farm will, from time to time pile manure. Areas need to be reviewed by a AEM planner prior to loading manure on an area. Burton 1 currently has a pile on the SE corner of the field. The area is within an aquifer recharge area with high leaching potential. The pile will need to be cleaned up as soon as possible to prevent ground water concerns as the frost leaves the soil.

The following is taken from the 590 standard concerning manure pile areas.

When the risk assessment tools of the nutrient management plan shows that there is insufficient land at specific times, storage will be provided for this period (and any extra period that is needed for farm management purposes) according to Waste Storage Facility standard (313).

When no storage is required by the NMP (and no Waste Storage Facility exists on the farm) then areas for temporary manure piles will be identified. It is appropriate only for manure that is of a moisture content that allows it to be stacked. A Manure Pile Area shall be located:

- With at least a 300 feet flow path to the nearest downslope watercourse,
- The flow path will be managed to provide diffuse overland flow,
- Where clean water runoff will be excluded from the Manure Pile Area,
- Where there is no groundwater spring, seep or subsurface drainage in the area.
- Where access is practicable during poor weather conditions such as excessive ice, snow or muddy ground,
- Where flooding will not occur during a 25 year 24-hour storm,
- Outside of an aquifer, recharge area.

Soils will be evaluated for their potential to leach contaminants into ground water. Soils must be stable enough to support the unloading equipment. Grading of the area will be provided only where the ground surface slope prevents proper equipment operation and efficiency. All side slopes for any excavation and earth fill shall not be steeper than three (3) horizontal to one (1) vertical.

The Manure Pile Area shall be at one or more locations and shall have sufficient area to store accumulated manure. Unless there is evidence on the farm that the manure is more stackable, assume that the manure will not stack higher than 4 feet with a 4:1 angle of repose. Manure consistency and moisture characteristics need to be considered when locating and sizing the Manure Pile Area.

Other Considerations

Observe 100ft setback to wells, sink holes, and waterways. If a 35' buffer strip is parallel to the water, manure can be applied up to the edge of the field border and inside most edge of the buffer effectively maintaining 35' from the water. If desired, manure can be applied within 15' of the water if it is incorporated within 1 day of application.

Do not spread within 20ft of a concentrated flow if runoff events are anticipated with the next 24-36 hours unless incorporation is possible.

Manure consistency will affect potential runoff. The more liquid the greater the risk. Generally speaking, manure > than 8% solids will not have much runoff risk as manure that is 2%. Risk of runoff increases as soils become more saturated from moisture.

Tile Lines

If tile lines are in a field and soils are saturated there is a higher risk to surface waters. Consider limiting applications on tiled fields to dryer seasons, or incorporate manure to disturb preferential flow paths. Check tile lines within 24 hours of application for potential concerns. Split apply

manure rates to minimize water quality impacts; apply 3000 gpa 2x 2-3 days apart as opposed to 6000 gpa all at once.

Weather

Manure applied to fresh snow has a higher runoff potential if temperatures are expected to be 40 degrees or warmer for more than 6 hours within 24-48 hours. If the snow pack is older, it will require higher temperatures over a longer period of time to produce runoff. Snow in excess of 8" has the potential to hold manure and as the bottom melts, deposits manure on the soil.

Be extremely careful if manure is applied during a melt not to apply within the drainage swale areas; they will be the first to be clear of snow.

Monitor weather just as you would for mowing hay for baling. If rainfall is expected to be 0.25 to 0.5", runoff may be expected on wetter soils. If rainfall is expected to be 0.5 and 1" seriously consider all factors that could impact the movement of manure applications. In general, if rainfall is expected to be greater than 1" do not apply manure.

If applications must be made and manure must absolutely be applied, limit rate per acre to 3000 gpa. Try to apply on well drained vegetated fields with slopes less than 5% and have a flow distance of 500+ feet or more. For additional information and guidance, refer to "Supplemental Manure Spreading Guidelines to Reduce Water Contamination Risk During Adverse Weather Conditions," by Karl Czymbek, et.al.

Flooded Fields

Fields that are flooded have been allocated for manure, in many cases, all year long. Depending on the season and spring melt flooding is not a constant and all year spreading allows for the worse-case P index scenario. If management can spread manure in April for early corn planting, it is necessary to set up the spreading schedule for all year. Applications on snow or frozen soil would likely wash nutrients off the field and should be avoided. The following fields are occasional or frequently flooded:

Broe 1 and 2 Burton 2 Burton 3a Green 7 Hansen 2 Hansen 7 Hansen 8 Hinkley 2 Hinkley 2b Hinkley 3 Hinkley 4a Hinkley 5 Hinkley barnyard. HVF 11 and 12 HVF14 Mark 6 Osterout	Occasional
Burton 3b	Frequent

Emergency Spread Fields

Several fields should be left for winter spreading in the event there is a need for emergency spreading. The fields recommended for winter spread include:

Barlow Flat, HVF 2, HVF 11&12, Twomey T1&T5. The volume of manure detailed in this section is about 1M gallons. There are additional winter spread fields available if needed or contact your planner as needed.

Based on the storage capacity for Pit 1, 2, and 3 there is 1.17 million gallons of manure (4885 tons). If applied by a 14.7 ton capacity tanker spreader it will take one tanker 16 days to empty the storage if hauling 20 loads per day. There will be an additional 4 ½ loads per day generated while the pit is being emptied.

Older corn fields should be the first to be applied and newer corn fields last. If manure were applied to all the corn fields at a rate of 20 ton per acre only 300 acres of corn could be covered with what was generated. Fields that were covered in the fall may not need spring applied manure according to the NMP. However, N supplementation during the growing season will most likely be needed.

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Airport 1	Airport 1 (pg 13)	10.0	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	52,695	15 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	719	7,186	2	Observe Factors that Result in Runoff Concerns
Airstrip	Airstrip (pg 13)	4.0	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Banner 2	Banner 2 (pg 8)	11.2	COS.8	May to Oct.	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	59,018	17	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Banner 3	Banner 3 (pg 8)	17.1	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	90,108	26	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Banner 5a	Banner 5a (pg 8)	5.2	GIT	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	27,401	8	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Banner 5b	Banner 5b (pg 8)	18.3	AGT.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	96,431	28	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Banner 6	Banner 6 (pg 8)	4.8	AGT.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	25,293	7	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Banner 7	Banner 7 (pg 8)	4.1	GIT	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	21,605	6	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application				Secondary Application				NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2		
Banner 9 Banner 9 (pg 8)	11.0	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	Observe Factors that Result in Runoff Concerns
Barlow 1 Barlow 1 (pg 8)	3	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	Observe Factors that Result in Runoff Concerns
Barlow 2 Barlow 2 (pg 8)	9	AGE	All Year	Surface applied on Frozen, snow covered soil	4 [MHWW]	23,952	215,569	62	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	Observe Factors that Result in Runoff Concerns
Barlow 3 Barlow 3 (pg 8)	6	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	Observe Factors that Result in Runoff Concerns
Barlow 4 Barlow 4 (pg 8)	5	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	Observe Factors that Result in Runoff Concerns
Barlow 5 Barlow 5 (pg 8)	6	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	Observe Factors that Result in Runoff Concerns
Barlow Flat Barlow Flat (pg 8)	39.1	ALT.6	All Year	Surface applied on Frozen, snow covered soil	4 [MHWW]	23,952	936,527	268	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	Observe Factors that Result in Runoff Concerns
Broe 1&2 Broe 1&2 (pg 10)	22.8	COG.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	120,144	34	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Broe 3	Broe 3 (pg 10)	21	COG.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	110,659	32 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	3 [Heifer]	2,156	45,269	13	Observe Factors that Result in Runoff Concerns
Broe 4	Broe 4 (pg 10)	26	SOY.1	All Year	Injected	1 [Dairy]	5,509	143,234	41	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Broe 6	Broe 6 (pg 10)	10.2	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Broe 7	Broe 7 (pg 10)	16	COG.2	May to Jan.	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	84,311	24 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	3 [Heifer]	5,988	95,808	27	Observe Factors that Result in Runoff Concerns
Broe 10	Broe 10 (pg 10)	22.3	COG.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	117,509	34 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	479	10,683	3	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Burton 1	Burton 1 (pg 3)	9.9	AGT.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	4,790	47,425	14	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Burton 2	Burton 2 (pg 3)	4.0	COG.8	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	21,078	6	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Burton 3a	Burton 3a (pg 3)	6	COG.8	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	31,617	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/fld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/fld)		
Burton 3b	Burton 3b (pg 3)	9	Idle	All Year	Injected	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Burton 4	Burton 4 (pg 3)	8.0	COG.8	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	42,156	12	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Burton 5	Burton 5 (pg 3)	21.2	COG.8	May to August	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	111,713	32	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Denny 1	Denny 1 (pg 7)	11.0	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	4,790	52,695	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Denny 2	Denny 2 (pg 7)	12.2	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	3,593	43,832	13 + Loads from Secondary Application	May to Oct.	Surface applied or Incorp after 5 days	1 [Dairy]	3,832	46,754	13	Observe Factors that Result in Runoff Concerns
Denny 3	Denny 3 (pg 7)	7.9	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	3,593	28,383	8 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	2,874	22,707	6	Observe Factors that Result in Runoff Concerns
Eggleston 1	Eggleston 1 (pg 8)	15.0	COS.6	May to Jan.	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	79,042	23 + Loads from Secondary Application	May to Oct.	Surface applied or Incorp after 5 days	1 [Dairy]	3,832	57,485	16	Observe Factors that Result in Runoff Concerns
Eichler 1	Eichler 1 (pg 7)	4.9	AGT.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	25,820	7	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Eichler 2	Eichler 2 (pg 7)	14.9	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Oct.	Surface applied or Incorp after 5 days	1 [Dairy]	4,790	71,377	20	Observe Factors that Result in Runoff Concerns
Eichler 3	Eichler 3 (pg 7)	10.6	ALT.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	55,856	16	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Eichler 4	Eichler 4 (pg 7)	10.7	AGT.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	56,383	16	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Eichler 5	Eichler 5 (pg 7)	11.9	COS.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Eichler 6	Eichler 6 (pg 7)	6.2	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	32,671	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Foster 1	Foster 1 (pg 7)	8.1	COS.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	42,683	12	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Foster 2	Foster 2 (pg 7)	6.7	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	35,305	10	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Foster 3	Foster 3 (pg 7)	9.8	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	51,641	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
German 1	German 1 (pg 4)	3.1	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	16,335	5	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
German 2	German 2 (pg 4)	6.1	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	32,144	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
German 3	German 3 (pg 4)	2.9	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	15,281	4	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 1	Green 1 (pg 3)	19.6	AGT.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	4,790	93,892	27	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 2	Green 2 (pg 3)	15.8	AGT.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	4,790	75,689	22	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 3	Green 3 (pg 3)	16.0	COS.2	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	3,593	57,485	16 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	6,467	103,473	30	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 4	Green 4 (pg 3)	13.9	COS.2	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	73,246	21 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	4,551	63,257	18	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 5	Green 5 (pg 3)	15.4	COS.2	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	81,150	23 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	3,832	59,018	17	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Green 6	Green 6 (pg 3)	17.0	COS.2	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	89,581	26 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	4,311	73,293	21	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 7	Green 7 (pg 3)	3.5	COS.2	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	18,443	5	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 8	Green 8 (pg 3)	6.1	COS.8	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	32,144	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 9	Green 9 (pg 3)	5.7	COS.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	3,593	20,479	6 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	5,749	32,766	9	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 10	Green 10 (pg 3)	10	AGT.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	52,695	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 11	Green 11 (pg 3)	6.9	AGT.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	36,359	10	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 12	Green 12 (pg 3)	13.1	AGT.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	69,030	20	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 13	Green 13 (pg 3)	4.5	COG.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	23,713	7	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Green 14	Green 14 (pg 3)	7	COS.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	36,886	11	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 15	Green 15 (pg 3)	6.6	COS.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	34,778	10	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 16	Green 16 (pg 3)	6.3	COS.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	33,198	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 17	Green 17 (pg 3)	8	AGT.7	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	42,156	12	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Green 18	Green 18 (pg 3)	13.5	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	71,138	20	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 19	Green 19 (pg 3)	2.7	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	14,228	4	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 20	Green 20 (pg 3)	4.4	COG.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	23,186	7	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Green 21	Green 21 (pg 3)	3.9	COG.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	20,551	6	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

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Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Hansen 1	Hanse n 1 (pg 11)	4.5	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	23,713	7	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 2	Hanse n 2 (pg 11)	8.7	COG.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 3	Hanse n 3 (pg 11)	8.6	AGT.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	45,317	13	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 4	Hanse n 4 (pg 11)	6.4	AGT.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	33,725	10	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 5	Hanse n 5 (pg 11)	16.5	COG.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Hansen 6	Hanse n 6 (pg 11)	20	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	105,389	30	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 7	Hanse n 7 (pg 11)	12	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	63,234	18	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 8	Hanse n 8 (pg 11)	15	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	79,042	23	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

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Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Hansen 11	Hansen 11 (pg 11)	14	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	73,772	21	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hansen 12	Hansen 12 (pg 11)	8.4	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	44,263	13	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Himers	Himers (pg 9)	30.6	COG.5	All Year	Surface applied or Incorp after 5 days	1 [Dairy]	5,269	161,246	46	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Hinkley 1	Hinkley 1 (pg 10)	28.6	COG.7	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	150,707	43	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hinkley 2	Hinkley 2 (pg 10)	25	SOY.1	All Year	Injected	1 [Dairy]	5,509	137,725	39	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hinkley 2a	Hinkley 2a (pg 10)	7	SOY.1	All Year	Injected	1 [Dairy]	5,509	38,563	11	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hinkley 3	Hinkley 3 (pg 10)	11.5	SOY.1	All Year	Injected	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	3 [Heifer]	5,509	63,353	18	Observe Factors that Result in Runoff Concerns
Hinkley 4a	Hinkley 4a (pg 10)	26.2	COG.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	138,060	39	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

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				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Hinkley 4b	Hinkle y 4b (pg 10)	10.8	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Hinkley 5	Hinkle y 5 (pg 10)	3.1	SOY.1	All Year	Injected	1 [Dairy]	5,509	17,078	5	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Hinkley barnyard	Hinkle y barnyard (pg 10)	3.8	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Home Flat	Home Flat (pg 13)	12.5	COS.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	65,868	19	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
HVF 1	HVF 1 (pg 6)	30.1	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	158,611	45	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
HVF 2	HVF 2 (pg 6)	26.1	COS.6	May to Oct.	Surface applied on Frozen, snow covered soil	3 [Heifer]	2,874	75,018	21 + Loads from Secondary Application	May to Oct.	BC + Incorp in 3-5 days	4 [MHWW]	4,311	112,527	32	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
HVF 3	HVF 3 (pg 6)	7.3	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	4 [MHWW]	5,269	38,467	11	Observe Factors that Result in Runoff Concerns
HVF 4	HVF 4 (pg 6)	8.5	COG.8	All Year	Surface applied or Incorp after 5 days	2 [Dry Cow]	2,874	24,431	7 + Loads from Secondary Application	May to Oct.	BC + Incorp in 3-5 days	4 [MHWW]	17,725	150,659	43	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application				Secondary Application				NLI >10 Must be Hay or have Cover Crop for Winter Application				
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2				
HVF 5	HVF 5 (pg 6)	16.9	COS.3	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	89,054	25	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
HVF 6	HVF 6 (pg 6)	32	COS.8	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	168,623	48 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	4 [MHWW]	9,102	291,257	83	Observe Factors that Result in Runoff Concerns
HVF 7	HVF 7 (pg 6)	32	COS.2	All Year	Surface applied on Frozen, snow covered soil	4 [MHWW]	5,269	168,623	48	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
HVF 8	HVF 8 (pg 6)	10	ALT.6	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	52,695	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
HVF 9	HVF 9 (pg 6)	2.1	GIT	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	11,066	3	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
HVF 10	HVF 10 (pg 6)	5.9	COS.2	All Year	Surface applied on Frozen, snow covered soil	4 [MHWW]	5,269	31,090	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
HVF 11&12	HVF 11&12 (pg 6)	28.6	COS.8	All Year	Surface applied on Frozen, snow covered soil	4 [MHWW]	5,269	150,707	43 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	3 [Heifer]	1,916	54,802	16	Observe Factors that Result in Runoff Concerns
HVF 13	HVF 13 (pg 6)	5	AGT.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	26,347	8	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
HVF 14	HVF 14 (pg 6)	6.3	GIT	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	33,198	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
HVF 15	HVF 15 (pg 6)	9.5	AGT.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	50,060	14	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
HVF 16	HVF 16 (pg 6)	12.5	GIT	All Year	Injected	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	4 [MHWW]	3,832	47,904	14	Observe Factors that Result in Runoff Concerns
HVF 17&18	HVF 17&18 (pg 6)	18.7	COG.7	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	2,874	53,749	15 + Loads from Secondary Application	May to Oct.	Surface applied or Incorp after 5 days	4 [MHWW]	1,916	35,832	10	Observe Factors that Result in Runoff Concerns
HVF 19	HVF 19 (pg 6)	6.2	GIT	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	32,671	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Kiser 1	Kiser 1 (pg 4)	10	COS.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	52,695	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Kolka	Kolka (pg 5)	15.7	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	82,731	24	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Larson 1	Larson 1 (pg 14)	25.6	COS.6	All Year	Surface applied or Incorp after 5 days	1 [Dairy]	5,269	134,898	39 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	5,030	128,766	37	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Larson 2	Larson 2 (pg 14)	5.6	GIT	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	29,509	8	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Larson 3	Larson 3 (pg 14)	28.7	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	151,234	43	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Larson 4	Larson 4 (pg 14)	10.3	GIT	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	54,275	16	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Mark 6	Mark 6 (pg 13)	2	AGT.4	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mark 7	Mark 7 (pg 13)	3.4	AGT.4	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mark Flat	Mark Flat (pg 13)	10	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	4,790	47,904	14	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Otten	Otten (pg 13)	12	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Martindale	Martindale (pg 7)	8.2	AGT.2	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application				Secondary Application				NLI >10 Must be Hay or have Cover Crop for Winter Application				
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2				
Mike 1	Mike 1 (pg 13)	5.7	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mike 2	Mike 2 (pg 13)	6	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mike 3	Mike 3 (pg 13)	4.2	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mt. Vision 1	Mt. Vision 1 (pg 15)	19.5	COG.3	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mt. Vision 2	Mt. Vision 2 (pg 15)	24.9	COG.3	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Mullan e	Mullan e (pg 11)	15.8	GIT	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	83,257	24	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Osterout	Osterout (pg 10)	12.2	COS.6	All Year	Surface applied or Incorp after 5 days	1 [Dairy]	5,269	64,287	18 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	5,988	73,054	21	Observe Factors that Result in Runoff Concerns
Palmatier 1	Palmatier 1 (pg 5)	15	GIT	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	79,042	23	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application				Secondary Application				NLI >10 Must be Hay or have Cover Crop for Winter Application				
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2				
Palmatier 2	Palmatier 2 (pg 5)	15	COS.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Palmatier 3	Palmatier 3 (pg 5)	8	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Pier 1	Pier 1 (pg 6)	8	COG.6	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	42,156	12	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Pier 2	Pier 2 (pg 6)	10	COS.6	All Year	Surface applied on Frozen, snow covered soil	2 [Dry Cow]	5,269	52,695	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Pier 3	Pier 3 (pg 6)	7	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Prager 1	Prager 1 (pg 14)	10.7	GIT	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	56,383	16	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Prager 2	Prager 2 (pg 14)	11.3	GIT	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	59,545	17	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Prager 3	Prager 3 (pg 14)	9.4	GIT	All Year	Surface applied on Frozen, snow covered soil	3 [Heifer]	5,269	49,533	14	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Prager 4	Prager 4 (pg 14)	10.4	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Prager 5	Prager 5 (pg 14)	8.5	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Prager Lfield	Prager Lfield (pg 14)	8.6	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Rumple 1	Rumple 1 (pg 5)	11	AGT.3	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Rumple 2	Rumple 2 (pg 5)	9.1	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Rumple Flat	Rumple Flat (pg 5)	12.5	Idle	All Year	Injected	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Scott 1	Scott 1 (pg 12)	32	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Schmidt 1	Schmidt 1 (pg 2)	10.9	COS.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	57,437	16	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Schmidt 2	Schmidt 2 (pg 2)	20.7	COS.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	109,078	31	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Schmidt 3	Schmidt 3 (pg 2)	11.2	COS.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	59,018	17	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Schmidt 4	Schmidt 4 (pg 2)	17	COS.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	89,581	26	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Schmidt 5	Schmidt 5 (pg 2)	7.1	COG.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	37,413	11	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Schmidt 6	Schmidt 6 (pg 2)	10.5	COG.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	55,329	16	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Schmidt 7	Schmidt 7 (pg 2)	6.5	COG.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	34,251	10	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Solomon 1	Solomon 1 (pg 1)	12	COG.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	63,234	18	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Solomon 2a	Solomon 2a (pg 1)	14	SOY.1	All Year	Injected	1 [Dairy]	5,509	77,126	22	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Solomon 2b	Solomon 2b (pg 1)	6	SOY.1	All Year	Injected	1 [Dairy]	5,509	33,054	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Solomon 3	Solomon 3 (pg 1)	12	COG.5	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	63,234	18	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Solomon 4	Solomon 4 (pg 1)	9	COG.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	47,425	14	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Solomon 5	Solomon 5 (pg 1)	6	AGT.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	31,617	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Solomon 6	Solomon 6 (pg 1)	5	COG.3	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	26,347	8	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Solomon 7,8	Solomon 7,8 (pg 1)	10.7	COG.1	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Sept. to Oct. Applications must have Cover Crop OR Apply after November 1
Solomon 9	Solomon 9 (pg 1)	10	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	52,695	15	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Tambasco	Tambasco (pg 7)	19.7	AGE	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Oct.	Surface applied or Incorp after 5 days	1 [Dairy]	5,509	108,527	31	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Twomey 1&5	Twomey 1&5 (pg 5)	50	COS.8	All Year	Surface applied or Incorp after 5 days	1 [Dairy]	4,311	215,569	62 + Loads from Secondary Application	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	2,395	119,760	34	Observe Factors that Result in Runoff Concerns
Twomey 2	Twomey 2 (pg 5)	14.4	CC.1	All Year	Injected	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Oct.	BC + Incorp in 3-5 days	1 [Dairy]	6,826	98,299	28	Observe Factors that Result in Runoff Concerns
Twomey 3	Twomey 3 (pg 5)	6	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	31,617	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Twomey 4	Twomey 4 (pg 5)	12	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	63,234	18	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Twomey 6	Twomey 6 (pg 5)	6	AGT.2	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	31,617	9	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Twomey 7	Twomey 7 (pg 5)	8.4	AGT.8	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	None Applied	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns
Woodbull	Woodbull (pg 5)	12	AGT.4	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	5,269	63,234	18	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns
Young 1	Young 1 (pg 8)	17.2	CC.1	All Year	Injected	1 [Dairy]	0	0	0	May to Jan.	Surface applied or Incorp after 5 days	1 [Dairy]	0	0	0	Observe Factors that Result in Runoff Concerns

Table 6 Manure Management Summary

Common ID	MAP ID	ACRES	Current Crop	Primary Manure Application					Secondary Application					NLI >10 Must be Hay or have Cover Crop for Winter Application		
				Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE	Manure (gal/ac)	Manure (gal/ld)	[3500]gal. LOADS PER FIELD	Months Manure can be Applied with Minimal Runoff Concern	Application Method	MANURE TYPE 2	Manure (gal/ac)	Manure (gal/ld)		
Young 2	Young 2 (pg 8)	13.2	COG.8	All Year	Surface applied on Frozen, snow covered soil	1 [Dairy]	0	0	0 + Loads from Secondary Application	May to Oct.	Surface applied or Incorp after 5 days	1 [Dairy]	7,665	101,174	29	Observe Factors that Result in Runoff Concerns
VTA	VTA	0	GIT	None Applied	Surface applied on Frozen, snow covered soil	7 [None]	0	0	0	None Applied	Injected	7 [None]	0	0	0	Observe Factors that Result in Runoff Concerns

1936.8 ac

Allocations are for the year unless noted. Loads per field are based on an 3500 gallons per load. KMS = Sul-Po-Mag; AMS = Ammon. Sulfate COS=Corn Silage; COG=Corn Grain; Soy=Soybean; AGT=Alfalfa Topdress; GRT=Grass Topdress; AGE>New Seeding; CC=Cereal Crop
[11 lbs per gallon of starter fertilizer: 3 cpa = 33 lbs, 5 cpa = 55 lbs, etc.]

8,508,479 2431

2,113,461 604

Table 6a

CY2012 Fertilizer Recommendations

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Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidedress Material	Sidedress N per field (tons)
1	2	3	4	5	6	7	8	9	11	13	14	15	17	18	25	26	27
Airport 1	13	Airport 1	10	AGE	7	H	M	M	200	0-0-58 TD +B	1.0	200	12-6-8 KMS Alfalfa Starter	1.0			
Airstrip	13	Airstrip	4	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	1.0	200	38-0-0 Early N with Sulfur	0.4			
Banner 2	8	Banner 2	11.2	COS.8	6.5	H	M	M	0	0-0-61 Corn	0.0	165	26-4-1 Nitan+ Ris R	0.9			
Banner 3	8	Banner 3	17.1	AGE	5.9	VL	L	VL	200	0-0-58 TD +B	1.7	200	12-6-8 KMS Alfalfa Starter	1.7			
Banner 5a	8	Banner 5a	5.2	GIT	6.6	M	M	H	200	Urea	0.5	200	38-0-0 Early N with Sulfur	0.5			
Banner 5b	8	Banner 5b	18.3	AGT.5	6.4	M	L	L	400	5-0-44 Alfalfa N, S, B	3.7	0	--	0.0			
Banner 6	8	Banner 6	4.8	AGT.5	6.4	L	L	L	400	5-0-44 Alfalfa N, S, B	1.0	0	--	0.0			
Banner 7	8	Banner 7	4.1	GIT	6.6	M	L	H	200	Urea	0.4	200	38-0-0 Early N with Sulfur	0.4			
Banner 9	8	Banner 9	11	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	2.8	200	38-0-0 Early N with Sulfur	1.1			
Barlow 1	8	Barlow 1	3	GIT	5.9	M	L	M	500	27-8-18 Grass TD - No Manure	0.8	200	38-0-0 Early N with Sulfur	0.3			

Table 6a

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Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidescress Material	Sidescress N per field (tons)
Burton 1	3	Burton 1	9.9	AGT.1	6.9	H	L	H	250	0-0-58 TD +B	1.2	0	--	0.0			
Burton 2	3	Burton 2	4	COG.8	5.4	VL	L	L	125	0-0-61 Corn	0.3	165	26-4-1 Nitan+ Ris R	0.3			
Burton 3a	3	Burton 3a	6	COG.8	5.7	VL	L	L	125	0-0-61 Corn	0.4	165	26-4-1 Nitan+ Ris R	0.5	153	Urea	0.5
Burton 3b	3	Burton 3b	9	Idle	5.7	VL	L	M	0	--	0.0	0	--	0.0			
Burton 4	3	Burton 4	8	COG.8	6.3	M	L	H	125	0-0-61 Corn	0.5	165	26-4-1 Nitan+ Ris R	0.7			
Burton 5	3	Burton 5	21.2	COG.8	6.7	H	M	H	0	0-0-61 Corn	0.0	165	26-4-1 Nitan+ Ris R	1.7	94	Urea	1.0
Denny 1	7	Denny 1	11	AGT.2	5.9	H	L	M	350	5-0-44 Alfalfa N, S, B	1.9	0	--	0.0			
Denny 2	7	Denny 2	12.2	AGE	6.8	H	L	H	200	0-0-58 TD +B	1.2	100	12-6-8 KMS Alfalfa Starter	0.6			
Denny 3	7	Denny 3	7.9	AGE	6.5	H	M	H	200	0-0-58 TD +B	0.8	200	12-6-8 KMS Alfalfa Starter	0.8			
Eggleston 1	8	Eggleston 1	15	COS.6	6.7	H	M	H	0	0-0-61 Corn	0.0	33	7-17-5 Riser	0.2			
Eichler 1	7	Eichler 1	4.9	AGT.3	6.1	H	L	M	400	5-0-44 Alfalfa N, S, B	1.0	0	--	0.0			
Eichler 2	7	Eichler 2	14.9	AGE	6.3	H	M	M	200	0-0-58 TD +B	1.5	200	12-6-8 KMS Alfalfa Starter	1.5			
Eichler 3	7	Eichler 3	10.6	ALT.6	6.1	M	L	M	400	5-0-44 Alfalfa N, S, B	2.1	0	--	0.0			

Table 6a

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Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidedress Material	Sidedress N per field (tons)
Eichler 4	7	Eichler 4	10.7	AGT.3	6.3	H	VL	M	400	5-0-44 Alfalfa N, S, B	2.1	0	--	0.0			
Eichler 5	7	Eichler 5	11.9	COS.1	6.1	H	L	M	250	0-0-61 Corn	1.5	110	26-4-1 Nitan+ Ris R	0.7			
Eichler 6	7	Eichler 6	6.2	AGE	6.4	H	L	M	200	0-0-58 TD +B	0.6	200	12-6-8 KMS Alfalfa Starter	0.6			
Foster 1	7	Foster 1	8.1	COS.4	6.8	H	L	H	125	0-0-61 Corn	0.5	200	26-4-1 Nitan+ Ris R	0.8			
Foster 2	7	Foster 2	6.7	AGE	6.1	M	L	M	200	0-0-58 TD +B	0.7	200	12-6-8 KMS Alfalfa Starter	0.7			
Foster 3	7	Foster 3	9.8	AGE	6.2	M	VL	M	200	0-0-58 TD +B	1.0	200	12-6-8 KMS Alfalfa Starter	1.0			
German 1	4	German 1	3.1	AGE	6.6	H	L	M	200	0-0-58 TD +B	0.3	200	12-6-8 KMS Alfalfa Starter	0.3			
German 2	4	German 2	6.1	AGE	6.4	M	L	M	200	0-0-58 TD +B	0.6	200	12-6-8 KMS Alfalfa Starter	0.6			
German 3	4	German 3	2.9	AGE	6	L	L	L	200	0-0-58 TD +B	0.3	200	12-6-8 KMS Alfalfa Starter	0.3			
Green 1	3	Green 1	19.6	AGT.1	7.2	H	M	H	200	0-0-58 TD +B	2.0	0	--	0.0			
Green 2	3	Green 2	15.8	AGT.1	7.1	H	L	H	200	0-0-58 TD +B	1.6	0	--	0.0			

Table 6a

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Green 3	3	Green 3	16	COS.2	7	H	L	H	0	0-0-61 Corn	0.0	50	7-17-5 Riser	0.4			
Green 4	3	Green 4	13.9	COS.2	6.6	H	L	H	0	0-0-61 Corn	0.0	50	7-17-5 Riser	0.3			
Green 5	3	Green 5	15.4	COS.2	6.6	H	L	H	0	0-0-61 Corn	0.0	50	7-17-5 Riser	0.4			
Green 6	3	Green 6	17	COS.2	6.7	M	L	H	0	0-0-61 Corn	0.0	50	26-4-1 Nitan+ Ris R	0.4			
Green 7	3	Green 7	3.5	COS.2	6.3	VL	L	VH	125	0-0-61 Corn	0.2	200	26-4-1 Nitan+ Ris R	0.4	58	Urea	0.1
Green 8	3	Green 8	6.1	COS.8	6.9	H	L	M	125	0-0-61 Corn	0.4	200	26-4-1 Nitan+ Ris R	0.6	95	Urea	0.3
Green 9	3	Green 9	5.7	COS.5	6.7	H	L	H	0	0-0-61 Corn	0.0	120	26-4-1 Nitan+ Ris R	0.3			
Green 10	3	Green 10	10	AGT.4	6.6	H	L	H	400	5-0-44 Alfalfa N, S, B	2.0	0	--	0.0			
Green 11	3	Green 11	6.9	AGT.3	6.8	H	L	M	400	5-0-44 Alfalfa N, S, B	1.4	0	--	0.0			
Green 12	3	Green 12	13.1	AGT.4	6.6	H	H	H	400	5-0-44 Alfalfa N, S, B	2.6	0	--	0.0			
Green 13	3	Green 13	4.5	COG.6	6.6	H	M	H	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	0.5	44	Urea	0.1
Green 14	3	Green 14	7	COS.8	6.8	H	M	M	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	0.7	47	Urea	0.2
Green 15	3	Green 15	6.6	COS.8	6.9	H	H	M	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	0.7	47	Urea	0.2

Table 6a

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Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidescress Material	Sidescress N per field (tons)
Green 16	3	Green 16	6.3	COS.8	6.5	M	L	H	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	0.6	47	Urea	0.1
Green 17	3	Green 17	8	AGT.7	6.1	H	L	M	400	5-0-44 Alfalfa N, S, B	1.6	0	--	0.0			
Green 18	3	Green 18	13.5	COG.8	6.6	H	M	M	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	1.4	44	Urea	0.3
Green 19	3	Green 19	2.7	COG.8	6.1	M	L	M	125	0-0-61 Corn	0.2	200	26-4-1 Nitan+ Ris R	0.3	66	Urea	0.1
Green 20	3	Green 20	4.4	COG.6	5.7	M	L	L	125	0-0-61 Corn	0.3	200	26-4-1 Nitan+ Ris R	0.4	66	Urea	0.1
Green 21	3	Green 21	3.9	COG.4	6.1	M	L	M	125	0-0-61 Corn	0.2	200	26-4-1 Nitan+ Ris R	0.4	66	Urea	0.1
Hansen 1	11	Hansen 1	4.5	AGE	6.4	H	H	M	200	0-0-58 TD +B	0.5	200	12-6-8 KMS Alfalfa Starter	0.5			
Hansen 2	11	Hansen 2	8.7	COG.1	6.4	H	L	H	300	0-0-61 Corn	1.3	100	26-4-1 Nitan+ Ris R	0.4			
Hansen 3	11	Hansen 3	8.6	AGT.4	6.5	H	L	M	400	5-0-44 Alfalfa N, S, B	1.7	0	--	0.0			
Hansen 4	11	Hansen 4	6.4	AGT.5	6.5	H	L	H	400	5-0-44 Alfalfa N, S, B	1.3	0	--	0.0			
Hansen 5	11	Hansen 5	16.5	COG.1	6.1	M	L	M	250	0-0-61 Corn	2.1	100	26-4-1 Nitan+ Ris R	0.8			
Hansen 6	11	Hansen 6	20	COG.8	6.6	H	L	H	125	0-0-61 Corn	1.3	200	26-4-1 Nitan+ Ris R	2.0	66	Urea	0.7

Table 6a

CY2012 Fertilizer Recommendations

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Hansen 7	11	Hansen 7	12	COG.8	6.9	M	L	M	125	0-0-61 Corn	0.8	200	26-4-1 Nitan+ Ris R	1.2	103	Urea	0.6
Hansen 8	11	Hansen 8	15	COG.8	7.1	H	M	H	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	1.5	64	Urea	0.5
Hansen 11	11	Hansen 11	14	COG.8	6.8	H	L	H	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	1.4	66	Urea	0.5
Hansen 12	11	Hansen 12	8.4	AGE	6.3	H	M	M	200	0-0-58 TD +B	0.8	200	12-6-8 KMS Alfalfa Starter	0.8			
Himers	9	Himers	30.6	COG.5	5.9	VL	L	M	0	0-0-61 Corn	0.0	175	26-4-1 Nitan+ Ris R	2.7			
Hinkley 1	10	Hinkley 1	28.6	COG.7	7	H	L	H	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	2.9	67	Urea	1.0
Hinkley 2	10	Hinkley 2	25	SOY.1	6.8	H	L	H	125	0-0-58 TD +B	1.6	33	7-17-5 Riser	0.4			
Hinkley 2a	10	Hinkley 2a	7	SOY.1	6.9	VL	L	M	125	0-0-58 TD +B	0.4	33	7-17-5 Riser	0.1			
Hinkley 3	10	Hinkley 3	11.5	SOY.1	7.3	VH	VH	H	0	0-0-58 TD +B	0.0	33	7-17-5 Riser	0.2			
Hinkley 4a	10	Hinkley 4a	26.2	COG.6	6.9	M	L	H	125	0-0-61 Corn	1.6	200	26-4-1 Nitan+ Ris R	2.6	103	Urea	1.4
Hinkley 4b	10	Hinkley 4b	10.8	GIT	6.8	H	L	M	500	27-8-18 Grass TD - No Manure	2.7	200	38-0-0 Early N with Sulfur	1.1			
Hinkley 5	10	Hinkley 5	3.1	SOY.1	7	H	H	M	0	0-0-58 TD +B	0.0	33	7-17-5 Riser	0.1			
Hinkley barny	10	Hinkley barnyard	3.8	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	1.0	200	38-0-0 Early N with Sulfur	0.4			

Table 6a

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Home Flat	13	Home Flat	12.5	COS.8	6.2	H	H	M	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	1.3	44	Urea	0.3
HVF 1	6	HVF 1	30.1	AGT.2	6.8	H	H	M	300	5-0-44 Alfalfa N, S, B	4.5	0	--	0.0			
HVF 2	6	HVF 2	26.1	COS.6	7.2	VH	VH	H	0	0-0-61 Corn	0.0	165	30-0-0 Starter	2.2	114	Urea	1.5
HVF 3	6	HVF 3	7.3	AGT.2	6.8	VH	VH	M	300	5-0-44 Alfalfa N, S, B	1.1	0	--	0.0			
HVF 4	6	HVF 4	8.5	COG.8	7	VH	VH	M	0	0-0-61 Corn	0.0	165	30-0-0 Starter	0.7	90	Urea	0.4
HVF 5	6	HVF 5	16.9	COS.3	7	H	M	M	0	0-0-61 Corn	0.0	165	26-4-1 Nitan+ Ris R	1.4			
HVF 6	6	HVF 6	32	COS.8	6.8	H	L	H	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	3.2			
HVF 7	6	HVF 7	32	COS.2	6.9	H	L	M	250	0-0-61 Corn	4.0	200	26-4-1 Nitan+ Ris R	3.2	78	Urea	1.2
HVF 8	6	HVF 8	10	ALT.6	7.1	H	L	H	400	5-0-44 Alfalfa N, S, B	2.0	0	--	0.0			
HVF 9	6	HVF 9	2.1	GIT	6.9	H	L	M	200	Urea	0.2	200	38-0-0 Early N with Sulfur	0.2			
HVF 10	6	HVF 10	5.9	COS.2	6.6	H	L	M	250	0-0-61 Corn	0.7	200	26-4-1 Nitan+ Ris R	0.6	36	Urea	0.1
HVF 11&12	6	HVF 11&12	28.6	COS.8	7.1	H	L	M	200	0-0-61 Corn	2.9	200	26-4-1 Nitan+ Ris R	2.9	107	Urea	1.5
HVF 13	6	HVF 13	5	AGT.5	6.8	H	L	M	400	5-0-44 Alfalfa N, S, B	1.0	0	--	0.0			

Table 6a

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HVF 14	6	HVF 14	6.3	GIT	6.9	H	L	M	200	Urea	0.6	200	38-0-0 Early N with Sulfur	0.6			
HVF 15	6	HVF 15	9.5	AGT.4	7.2	H	L	L	400	5-0-44 Alfalfa N, S, B	1.9	0	--	0.0			
HVF 16	6	HVF 16	12.5	GIT	7.1	H	L	M	200	Urea	1.3	200	38-0-0 Early N with Sulfur	1.3			
HVF 17&18	6	HVF 17&18	18.7	COG.7	7.3	H	L	M	200	0-0-61 Corn	1.9	200	26-4-1 Nitan+ Ris R	1.9	131	Urea	1.2
HVF 19	6	HVF 19	6.2	GIT	7	H	L	M	200	Urea	0.6	200	38-0-0 Early N with Sulfur	0.6			
Kiser 1	4	Kiser 1	10	COS.5	7.2	H	H	M	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	1.0	44	Urea	0.2
Kolka	5	Kolka	15.7	AGE	6.7	H	M	M	200	0-0-58 TD +B	1.6	200	12-6-8 KMS Alfalfa Starter	1.6			
Larson 1	14	Larson 1	25.6	COS.6	6.6	H	M	H	0	0-0-61 Corn	0.0	90	26-4-1 Nitan+ Ris R	1.2			
Larson 2	14	Larson 2	5.6	GIT	6.2	L	L	M	200	Urea	0.6	200	38-0-0 Early N with Sulfur	0.6			
Larson 3	14	Larson 3	28.7	AGE	5.9	VL	L	M	300	0-10-40 TD No Manure	4.3	200	12-6-8 KMS Alfalfa Starter	2.9			

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Larson 4	14	Larson 4	10.3	GIT	6.1	VL	L	M	200	Urea	1.0	200	38-0-0 Early N with Sulfur	1.0			
Mark 6	13	Mark 6	2	AGT.4	5.8	H	L	M	500	0-10-40 TD No Manure	0.5	0	--	0.0			
Mark 7	13	Mark 7	3.4	AGT.4	5.8	H	L	M	500	0-10-40 TD No Manure	0.9	0	--	0.0			
Mark Flat	13	Mark Flat	10	AGT.2	5.6	VL	L	L	400	5-0-44 Alfalfa N, S, B	2.0	0	--	0.0			
Otten	13	Otten	12	GIT	6.6	M	M	M	500	27-8-18 Grass TD - No Manure	3.0	200	38-0-0 Early N with Sulfur	1.2			
Martindale	7	Martindale	8.2	AGT.2	6.3	H	VL	M	500	0-10-40 TD No Manure	2.1	0	--	0.0			
Mike 1	13	Mike 1	5.7	GIT	5.9	L	L	L	500	27-8-18 Grass TD - No Manure	1.4	200	38-0-0 Early N with Sulfur	0.6			
Mike 2	13	Mike 2	6	GIT	5.8	VL	L	L	500	27-8-18 Grass TD - No Manure	1.5	200	38-0-0 Early N with Sulfur	0.6			
Mike 3	13	Mike 3	4.2	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	1.1	200	38-0-0 Early N with Sulfur	0.4			
Mt. Vision	15	Mt. Vision 1	20	COG.3	5.9	L	L	M	300	0-0-61 Corn	2.9	200	26-4-1 Nitan+ Ris R	2.0	147.8	Urea	1.4
Mt. Vision	15	Mt. Vision 2	25	COG.3	6.3	M	L	M	300	0-0-61 Corn	3.7	200	26-4-1 Nitan+ Ris R	2.5	127.5	Urea	1.6

Table 6a

CY2012 Fertilizer Recommendations

Printed 2/29/2012

Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidescress Material	Sidescress N per field (tons)
Mullane	11	Mullane	16	GIT	6.7	H	L	H	200	Urea	1.6	200	38-0-0 Early N with Sulfur	1.6			
Osterout	10	Osterout	12	COS.6	6.8	H	M	M	0	0-0-61 Corn	0.0	150	26-4-1 Nitan+ Ris R	0.9			
Palmatier	5	Palmatier 1	15	GIT	6.4	L	VL	M	200	Urea	1.5	200	38-0-0 Early N with Sulfur	1.5			
Palmatier	5	Palmatier 2	15	COS.1	6.8	M	L	M	300	0-0-61 Corn	2.3	100	26-4-1 Nitan+ Ris R	0.8			
Palmatier	5	Palmatier 3	8	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	2.0	200	38-0-0 Early N with Sulfur	0.8			
Pier 1	6	Pier 1	8	COG.6	6.3	M	L	M	0	0-0-61 Corn	0.0	165	26-4-1 Nitan+ Ris R	0.7			
Pier 2	6	Pier 2	10	COS.6	6.2	VL	VL	L	0	0-0-61 Corn	0.0	165	26-4-1 Nitan+ Ris R	0.8			
Pier 3	6	Pier 3	7	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	1.8	200	38-0-0 Early N with Sulfur	0.7			
Prager 1	14	Prager 1	11	GIT	6.1	VL	VL	M	200	Urea	1.1	200	38-0-0 Early N with Sulfur	1.1			
Prager 2	14	Prager 2	11	GIT	5.9	VL	L	L	200	Urea	1.1	200	38-0-0 Early N with Sulfur	1.1			

Table 6a

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Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidescress Material	Sidescress N per field (tons)
Prager 3	14	Prager 3	9.4	GIT	5.9	VL	L	M	200	Urea	0.9	200	38-0-0 Early N with Sulfur	0.9			
Prager 4	14	Prager 4	10	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	2.6	200	38-0-0 Early N with Sulfur	1.0			
Prager 5	14	Prager 5	8.5	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	2.1	200	38-0-0 Early N with Sulfur	0.9			
Prager Lfie	14	Prager Lfield	8.6	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	2.2	200	38-0-0 Early N with Sulfur	0.9			
Rumple 1	5	Rumple 1	11	AGT.3	5.8	VL	L	L	600	0-10-40 TD No Manure	3.3	0	--	0.0			
Rumple 2	5	Rumple 2	9.1	GIT	7.1	H	L	H	500	27-8-18 Grass TD - No Manure	2.3	200	38-0-0 Early N with Sulfur	0.9			
Rumple Fl	5	Rumple Flat	13	Idle	0	VL	VL	VL	0	--	0.0	0	--	0.0			
Scott 1	12	Scott 1	32	GIT	0	VL	VL	VL	500	27-8-18 Grass TD - No Manure	8.0	200	38-0-0 Early N with Sulfur	3.2			
Schmidt 1	2	Schmidt 1	11	COS.4	5.9	M	L	L	125	0-0-61 Corn	0.7	200	26-4-1 Nitan+ Ris R	1.1	44.4	Urea	0.2
Schmidt 2	2	Schmidt 2	21	COS.4	6.2	L	L	M	125	0-0-61 Corn	1.3	200	26-4-1 Nitan+ Ris R	2.1	66.1	Urea	0.7
Schmidt 3	2	Schmidt 3	11	COS.4	5.8	VL	L	L	125	0-0-61 Corn	0.7	200	26-4-1 Nitan+ Ris R	1.1	66.1	Urea	0.4

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Schmidt 4	2	Schmidt 4	17	COS.4	6	VL	L	L	125	0-0-61 Corn	1.1	200	26-4-1 Nitan+ Ris R	1.7	66.1	Urea	0.6
Schmidt 5	2	Schmidt 5	7.1	COG.4	6	VL	L	VL	125	0-0-61 Corn	0.4	200	26-4-1 Nitan+ Ris R	0.7	44.4	Urea	0.2
Schmidt 6	2	Schmidt 6	11	COG.4	6.1	H	L	M	125	0-0-61 Corn	0.7	200	26-4-1 Nitan+ Ris R	1.1	44.4	Urea	0.2
Schmidt 7	2	Schmidt 7	6.5	COG.4	6.2	VL	L	M	125	0-0-61 Corn	0.4	200	26-4-1 Nitan+ Ris R	0.7			
Solomon 1	1	Solomon 1	12	COG.3	6.6	H	L	L	125	0-0-61 Corn	0.8	200	26-4-1 Nitan+ Ris R	1.2			
Solomon 2	1	Solomon 2a	14	SOY.1	6.8	VL	L	M	125	0-0-58 TD +B	0.9	33	7-17-5 Riser	0.2			
Solomon 2	1	Solomon 2b	6	SOY.1	5.8	VL	L	L	125	0-0-58 TD +B	0.4	33	7-17-5 Riser	0.1			
Solomon 3	1	Solomon 3	12	COG.5	6.8	L	L	L	125	0-0-61 Corn	0.8	200	26-4-1 Nitan+ Ris R	1.2	66.1	Urea	0.4
Solomon 4	1	Solomon 4	9	COG.3	6.8	L	L	L	125	0-0-61 Corn	0.6	200	26-4-1 Nitan+ Ris R	0.9			
Solomon 5	1	Solomon 5	6	AGT.3	6.4	VL	L	M	400	5-0-44 Alfalfa N, S, B	1.2	0	--	0.0			
Solomon 6	1	Solomon 6	5	COG.3	5.8	VL	L	L	125	0-0-61 Corn	0.3	200	26-4-1 Nitan+ Ris R	0.5			
Solomon 7	1	Solomon 7,8	11	COG.1	7	M	L	L	300	0-0-61 Corn	1.6	110	26-4-1 Nitan+ Ris R	0.6			
Solomon 9	1	Solomon 9	10	AGT.2	6.7	VL	L	L	300	5-0-44 Alfalfa N, S, B	1.5	0	--	0.0			

Table 6a

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Map Id	Page# Reference	Common Name	acres	Crop Code	pH	P Rating	K Rating	Mg Rating	BC Fert Rate	BC Fert Anal.	Tons BC per Fld	ST Fert Rate (lbs/ac)	ST Fert Anal.	Tons ST per field	Additional Sidedress (lbs Material /ac)	Sidescress Material	Sidescress N per field (tons)
Tambasco	7	Tambasco	20	AGE	7.1	H	M	H	150	0-0-58 TD +B	1.5	200	12-6-8 KMS Alfalfa Starter	2.0			
Twomey 1	5	Twomey 1&5	50	COS.8	7	VH	M	M	0	0-0-61 Corn	0.0	200	26-4-1 Nitan+ Ris R	5.0	36.2	Urea	0.9
Twomey 2	5	Twomey 2	14	CC.1	7.3	VH	H	H	150	Urea	1.1	0	--	0.0			
Twomey 3	5	Twomey 3	6	AGT.2	6.5	H	L	M	300	5-0-44 Alfalfa N, S, B	0.9	0	--	0.0			
Twomey 4	5	Twomey 4	12	AGT.2	6.8	H	L	M	300	5-0-44 Alfalfa N, S, B	1.8	0	--	0.0			
Twomey 6	5	Twomey 6	6	AGT.2	6.5	H	L	H	300	5-0-44 Alfalfa N, S, B	0.9	0	--	0.0			
Twomey 7	5	Twomey 7	8.4	AGT.8	0	VL	VL	VL	600	0-10-40 TD No Manure	2.5	0	--	0.0			
Woodbull	5	Woodbull	12	AGT.4	6.6	H	L	H	400	5-0-44 Alfalfa N, S, B	2.4	0	--	0.0			
Young 1	8	Young 1	17	CC.1	6.2	M	L	M	150	Urea	1.3	0	--	0.0			
Young 2	8	Young 2	13	COG.8	6.9	H	M	H	0	0-0-61 Corn	0.0	100	26-4-1 Nitan+ Ris R	0.7			
VTA	0	VTA	0	GIT	6.7	H	VH	M	0	--	0.0	0	--	0.0			
			1937		5.9						187.0			128.5		23.2	

Table 7 Fertilizer Usage Summary

ANALYSIS CODE	N %	P2O5 %	K2O %	ADDITIVES	TONS OF EACH BLEND
BC1	46	0	0	UREA	13.8
BC2	0	0	58	TD +B	25.0
BC3	0	0	61	Corn	40.4
BC4	0	10	40	TD No Manure	13.5
BC5	0	0	42	KMS Potash	0.0
BC6	27	8	18	Grass TD No Manure	42.8
BC7	5	0	44	Alfalfa N, S, B	51.4
BC8	0	0	0	0	0.0
BC9	0	0	0	0	0.0
BC10	0	0	0	0	0.0
PEL-LIME	0	0	0	0	0.0
Side N	32	0	0	Sidedress	0.0
ST1	26	4	1	Nitan+ Ris R	76.5
ST2	7	17	5	Riser	2.9
ST3	30	0	0	Starter	2.9
ST4	12	6	8	KMS Alfalfa Starter	17.7
TD1	38	0	0	Early N with	57.2
Custom N	46	0	0	Urea	23.2
				TONS	367.3

LIME SUMMARY

Lime and Magnesium recommendations have been made to meet the particular pH levels and nutrient needs. Not all crops need the same pH level and depending on farmer preference a pH of 7 is not always desired based on finances and rotation schedules.

Given the pH for grasses should be about 6.2, for corn silage 6.2-6.5, and alfalfa about 6.8 to 7.0. If you had a 3 year corn and 4 year hay rotation, you may find that keeping a pH of about 6.6-6.7 would be ideal for your cropping situation since you would minimize pH swings. While soil nutrients do become more available to the plant at 7.0 certain forages can function quite well in the ranges described.

So if soil nutrients are more available at a pH of 7 why not lime everything to 7.0? Nitrogen (N), Phosphorus (P), and Potassium (K) are the elements that become most available, most of the ‘major’ micro-nutrients become less available. In particular is zinc (Zn) which is very necessary for corn production.

Magnesium is listed along with the lime recommendation since lime is the most economical means to applying Mg to the soil. Magnesium is important in maintaining proper P and K uptake, especially where soil K levels are high and Mg levels are low. By assuring Mg levels are adequately available in the soil the plant has the ability to maximize food production through photosynthesis and carbohydrate production.

Pelletized lime has been recommended in some cases to help provide a source of Mg when soil Mg levels fall below 10% and pH is high enough that the addition of Ag lime is not a viable choice.

pH's above 7.0

A pH above 7.0 is not uncommon. When a field does test higher in pH than 7.0 there is a going to be even less micro nutrient availability as discussed earlier. When pH is above 7.2 and greater, the forage analysis should check for molybdenum (Mo) levels. There are several ways to minimize the impact of very high soil pH. Utilize ammonium sulfate (AMS) in starter and broadcast fertilizers and monitor micro-nutrient deficiencies through tissue sampling if necessary. Once a deficiency is determined you can more specifically apply the nutrient that may be limiting yield. It is conceivable that with the addition of AMS, pH may not be affected drastically over time on some fields as much as it is on others.

NOTE:

ALL RECOMMENDATIONS ARE BASED ON 100% CCE. CHECK %ENV OF PURCHASED SOURCE AND DIVIDE THE RATE BY %ENV.

Table 8 Lime Recommendations

FSA ID	Map Id	ACRES	Crop	pH	Mg (%)	K (%)	Tons per Acre 100% CCE			SOURCE	Date Applied	Rate Applied	Date Sampled	Tons needed @ 6.5	K:Mg Ratio Imbalance
							Target pH Range								
Airport 1	Airport 1	10	AGE	7.0	15.8	3.7	Good	Good	0.0	Calcitic			Apr-11	0	
Airstrip	Airstrip	4	GIT	0.0	0	0				High Mag			No Manure	0	
Banner 2	Banner 2	11.2	COS.8	6.5	13.9	3.9	0.0	0.8	1.3	Calcitic			Apr-11	0	
Banner 3	Banner 3	17.1	AGE	5.9	5.9	2	2.3	2.7	3.1	High Mag			Apr-11	40	1.13
Banner 5a	Banner 5a	5.2	GIT	6.6	17.6	3.3	Good	0.3	0.7	Calcitic			Apr-11	0	
Banner 5b	Banner 5b	18.3	AGT.5	6.4	9.8	1.3	0.5	1.0	1.4	High Mag			Apr-11	10	
Banner 6	Banner 6	4.8	AGT.5	6.4	9.7	1.3	0.4	0.8	1.1	High Mag			Apr-11	2	
Banner 7	Banner 7	4.1	GIT	6.6	16.6	2.7	Good	0.3	0.7	Calcitic			Apr-11	0	
Banner 9	Banner 9	11	GIT	0.0	0	0				High Mag			No Manure	0	
Barlow 1	Barlow 1	3	GIT	5.9	11.7	1.1	2.0	2.4	2.7	High Mag			Apr-11	6	
Barlow 2	Barlow 2	9	AGE	6.5	17.6	2.1	0.0	0.6	1.0	Calcitic			Apr-11	0	
Barlow 3	Barlow 3	6	GIT	0.0	0	0				High Mag			Dec-01	0	
Barlow 4	Barlow 4	5	GIT	0.0	0	0				High Mag			Dec-01	0	
Barlow 5	Barlow 5	6	GIT	0.0	0	0				High Mag			Dec-01	0	
Barlow Flat	Barlow Fla	39.1	ALT.6	6.6	17.2	3.5	Good	0.4	0.9	Calcitic			Apr-11	0	
Broe 1&2	Broe 1&2	22.8	COG.6	6.8	16.3	2.9	Good	Good	0.5	Calcitic			Apr-11	0	
Broe 3	Broe 3	21	COG.6	6.8	14.8	2.3	Good	Good	0.3	Calcitic			Apr-11	0	
Broe 4	Broe 4	26	SOY.1	6.7	15.1	2.7	Good	0.0	0.8	Calcitic			Apr-11	0	
Broe 6	Broe 6	10.2	GIT	6.8	14.8	2.3	Good	Good	0.3	Calcitic			Apr-11	0	
Broe 7	Broe 7	16	COG.2	5.5	6.5	1.1	3.4	3.7	4.1	High Mag			Apr-11	54	
Broe 10	Broe 10	22.3	COG.4	6.1	11.8	2	1.7	2.0	2.5	High Mag			Apr-11	37	
Burton 1	Burton 1	9.9	AGT.1	6.9	16.5	2.5	Good	Good	0.3	Calcitic			Apr-11	0	
Burton 2	Burton 2	4	COG.8	5.4	8.3	1.6	3.5	3.8	4.2	High Mag			Apr-11	14	
Burton 3a	Burton 3a	6	COG.8	5.7	8.1	1.1	2.7	3.0	3.4	High Mag			Apr-11	16	
Burton 3b	Burton 3b	9	Idle	5.7	10.1	1.1	2.0	2.2	2.5	High Mag			Apr-09	18	
Burton 4	Burton 4	8	COG.8	6.3	16.8	1.4	0.6	0.9	1.2	Calcitic			Apr-11	5	
Burton 5	Burton 5	21.2	COG.8	6.7	16.1	3	Good	0.0	0.6	Calcitic			Apr-11	0	
Denny 1	Denny 1	11	AGT.2	5.9	11.2	1.8	2.3	2.7	3.1	High Mag			Apr-11	26	
Denny 2	Denny 2	12.2	AGE	6.8	17.9	2.1	Good	Good	0.6	Calcitic			Apr-11	0	
Denny 3	Denny 3	7.9	AGE	6.5	16.4	3.3	0.0	1.0	1.6	Calcitic			Apr-11	0	
Eggleson 1	Eggleson 1	15	COS.6	6.7	17.4	3.4	Good	0.0	0.8	Calcitic			Apr-11	0	
Eichler 1	Eichler 1	4.9	AGT.3	6.1	14.2	1.2	1.2	1.4	1.8	Calcitic			Nov-11	6	
Eichler 2	Eichler 2	14.9	AGE	6.3	15.2	3.5	0.8	1.2	1.6	Calcitic			Nov-11	12	
Eichler 3	Eichler 3	10.6	ALT.6	6.1	14.7	1.7	1.2	1.4	1.8	Calcitic			Nov-11	12	
Eichler 4	Eichler 4	10.7	AGT.3	6.3	15.2	0.9	0.8	1.2	1.6	Calcitic			Nov-11	9	
Eichler 5	Eichler 5	11.9	COS.1	6.1	13.3	1.4	1.4	1.7	2.1	Calcitic			Nov-11	17	

Table 8 Lime Recommendations

FSA ID	Map Id	ACRES	Crop	pH	Mg (%)	K (%)	Tons per Acre 100% CCE			SOURCE	Date Applied	Rate Applied	Date Sampled	Tons needed/fld @ 6.5	K:Mg Ratio Imbalance
							Target pH Range								
6.5	6.7	7													
Eichler 6	Eichler 6	6.2	AGE	6.4	13.1	1.8	0.7	1.2	1.7	Calcitic			Nov-11	4	
Foster 1	Foster 1	8.1	COS.4	6.8	16	1.5	Good	Good	0.6	Calcitic			Nov-11	0	
Foster 2	Foster 2	6.7	AGE	6.1	13.6	1.2	1.7	2.0	2.5	Calcitic			Nov-11	11	
Foster 3	Foster 3	9.8	AGE	6.2	13.4	0.9	1.6	2.1	2.7	Calcitic			Nov-11	16	
German 1	German 1	3.1	AGE	6.6	10.2	1.8	Good	0.4	0.9	High Mag			Nov-11	0	
German 2	German 2	6.1	AGE	6.4	12.1	1.9	0.4	0.8	1.1	Calcitic			Nov-11	3	
German 3	German 3	2.9	AGE	6	8.6	1.7	1.6	1.9	2.2	High Mag			Nov-11	5	
Green 1	Green 1	19.6	AGT.1	7.2	16.7	3.5	Good	Good	UseAMS	Calcitic			Apr-11	0	
Green 2	Green 2	15.8	AGT.1	7.1	16.2	2.2	Good	Good	UseAMS	Calcitic			Apr-11	0	
Green 3	Green 3	16	COS.2	7	19.5	1.5	Good	Good	0.0	Calcitic			Apr-11	0	
Green 4	Green 4	13.9	COS.2	6.6	17.3	1.9	Good	0.4	0.9	Calcitic			Apr-11	0	
Green 5	Green 5	15.4	COS.2	6.6	19	1.8	Good	0.3	0.7	Calcitic			Apr-11	0	
Green 6	Green 6	17	COS.2	6.7	18	1.2	Good	0.0	0.8	Calcitic			Apr-11	0	
Green 7	Green 7	3.5	COS.2	6.3	22.1	1.3	0.5	0.7	0.9	Calcitic			Apr-11	2	
Green 8	Green 8	6.1	COS.8	6.9	14.4	1.5	Good	Good	0.2	Calcitic			Apr-11	0	
Green 9	Green 9	5.7	COS.5	6.7	18.2	2.8	Good	0.0	1.0	Calcitic			Apr-11	0	
Green 10	Green 10	10	AGT.4	6.6	17.1	1.7	Good	0.5	1.2	Calcitic			Apr-11	0	
Green 11	Green 11	6.9	AGT.3	6.8	15.7	2.2	Good	Good	0.3	Calcitic			Apr-11	0	
Green 12	Green 12	13.1	AGT.4	6.6	18.5	4.1	Good	0.5	1.2	Calcitic			Apr-11	0	
Green 13	Green 13	4.5	COG.6	6.6	19.3	3.5	Good	0.5	1.2	Calcitic			Apr-11	0	
Green 14	Green 14	7	COS.8	6.8	15.5	3.7	Good	Good	0.3	Calcitic			Apr-11	0	
Green 15	Green 15	6.6	COS.8	6.9	15.8	4.3	Good	Good	0.2	Calcitic			Apr-11	0	
Green 16	Green 16	6.3	COS.8	6.5	17.2	2.6	0.0	0.5	0.8	Calcitic			Apr-11	0	
Green 17	Green 17	8	AGT.7	6.1	10.5	2.2	1.7	2.0	2.5	High Mag			Apr-11	13	
Green 18	Green 18	13.5	COG.8	6.6	15.3	3.1	Good	0.3	0.7	Calcitic			Nov-11	0	
Green 19	Green 19	2.7	COG.8	6.1	12.4	1.1	1.4	1.7	2.1	Calcitic			Nov-11	4	
Green 20	Green 20	4.4	COG.6	5.7	9.7	1.5	3.1	3.4	3.8	High Mag			Nov-11	13	
Green 21	Green 21	3.9	COG.4	6.1	13.4	1.2	1.2	1.4	1.8	Calcitic			Nov-11	5	
Hansen 1	Hansen 1	4.5	AGE	6.4	13.4	4.1	0.7	1.2	1.7	Calcitic			Apr-11	3	
Hansen 2	Hansen 2	8.7	COG.1	6.4	16.1	1.9	0.4	0.8	1.1	Calcitic			Apr-11	4	
Hansen 3	Hansen 3	8.6	AGT.4	6.5	15.3	2.9	0.0	0.5	0.8	Calcitic			Apr-11	0	
Hansen 4	Hansen 4	6.4	AGT.4	6.5	16.6	2.5	0.0	1.0	1.6	Calcitic			Apr-11	0	
Hansen 5	Hansen 5	16.5	COG.1	6.1	15.9	2.9	1.2	1.4	1.8	Calcitic			Apr-11	19	
Hansen 6	Hansen 6	20	COG.8	6.6	17.9	2.5	Good	0.3	0.7	Calcitic			Apr-11	0	
Hansen 7	Hansen 7	12	COG.8	6.9	12.6	1.8	Good	Good	0.3	Calcitic			Apr-11	0	
Hansen 8	Hansen 8	15	COG.8	7.1	17.9	3.2	Good	Good	UseAMS	Calcitic			Apr-11	0	
Hansen 11	Hansen 11	14	COG.8	6.8	17.8	2.3	Good	Good	0.5	Calcitic			Apr-11	0	
Hansen 12	Hansen 12	8.4	AGE	6.3	13.7	3.9	1.0	1.4	1.9	Calcitic			Apr-11	8	

Table 8 Lime Recommendations

FSA ID	Map Id	ACRES	Crop	pH	Mg (%)	K (%)	Tons per Acre 100% CCE			SOURCE	Date Applied	Rate Applied	Date Sampled	Tons needed/fld @ 6.5	K:Mg Ratio Imbalance
							Target pH Range								
Himers	Himers	30.6	COG.5	5.9	11.9	2.8	2.3	2.7	3.1	High Mag			Apr-11	72	
Hinkley 1	Hinkley 1	28.6	COG.7	7	17.1	2.3	Good	Good	0.0	Calcitic			Apr-11	0	
Hinkley 2	Hinkley 2	25	SOY.1	6.8	16.3	2.7	Good	Good	0.3	Calcitic			Apr-11	0	
Hinkley 2a	Hinkley 2a	7	SOY.1	6.9	12.6	1	Good	Good	0.2	Calcitic			Apr-11	0	
Hinkley 3	Hinkley 3	11.5	SOY.1	7.3	19.9	6.6	Good	Good	UseAMS	Calcitic			Apr-11	0	
Hinkley 4a	Hinkley 4a	26.2	COG.6	6.9	16	1.5	Good	Good	0.2	Calcitic			Apr-11	0	
Hinkley 4b	Hinkley 4b	10.8	GIT	6.8	11.5	1.5	Good	Good	0.3	High Mag			Dec-06	0	
Hinkley 5	Hinkley 5	3.1	SOY.1	7	15.9	4.4	Good	Good	0.0	Calcitic			Apr-11	0	
Hinkley barnyard	Hinkley barny	3.8	GIT	0	0	0				High Mag			No Manure	0	
Home Flat	Home Flat	12.5	COS.8	6.2	12	4.1	1.4	1.9	2.4	High Mag			Nov-11	18	1.12
HVF 1	HVF 1	30.1	AGT.2	6.8	13.2	4.1	Good	Good	0.3	Calcitic			Apr-11	0	
HVF 2	HVF 2	26.1	COS.6	7.2	16.4	5.4	Good	Good	UseAMS	Calcitic			Apr-11	0	
HVF 3	HVF 3	7.3	AGT.2	6.8	13.3	6.1	Good	Good	0.3	Calcitic			Apr-11	0	1.48
HVF 4	HVF 4	8.5	COG.8	7	15.4	5.7	Good	Good	0.0	Calcitic			Apr-11	0	1.20
HVF 5	HVF 5	16.9	COS.3	7	14.1	3.3	Good	Good	0.0	Calcitic			Apr-11	0	
HVF 6	HVF 6	32	COS.8	6.8	17	1.9	Good	Good	0.3	Calcitic			Apr-11	0	
HVF 7	HVF 7	32	COS.2	6.9	10.4	1.9	Good	Good	0.2	High Mag			Apr-11	0	
HVF 8	HVF 8	10	ALT.6	7.1	16.3	1.6	Good	Good	UseAMS	Calcitic			Apr-11	0	
HVF 9	HVF 9	2.1	GIT	6.9	13.3	2	Good	Good	0.2	Calcitic			Nov-11	0	
HVF 10	HVF 10	5.9	COS.2	6.6	12.8	1.8	Good	0.4	0.9	Calcitic			Nov-11	0	
HVF 11&12	HVF 11&12	28.6	COS.8	7.1	13.7	2.4	Good	Good	UseAMS	Calcitic			Nov-11	0	
HVF 13	HVF 13	5	AGT.5	6.8	12.2	1.2	Good	Good	0.3	Calcitic			Apr-11	0	
HVF 14	HVF 14	6.3	GIT	6.9	13.6	1.5	Good	Good	0.2	Calcitic			Apr-11	0	
HVF 15	HVF 15	9.5	AGT.4	7.2	9.8	1.6	Good	Good	UseAMS	High Mag			Nov-11	0	
HVF 16	HVF 16	12.5	GIT	7.1	11.8	1.6	Good	Good	UseAMS	High Mag			Nov-11	0	
HVF 17&18	HVF 17&18	18.7	COG.7	7.3	12.7	2	Good	Good	UseAMS	Calcitic			Nov-11	0	
HVF 19	HVF 19	6.2	GIT	7	12	2	Good	Good	0.0	High Mag			Nov-11	0	
Kiser 1	Kiser 1	10	COS.5	7.2	13.9	4.7	Good	Good	UseAMS	Calcitic			Nov-11	0	1.11
Kolka	Kolka	15.7	AGE	6.7	15.7	3.3	Good	0.0	0.4	Calcitic			Apr-11	0	
Larson 1	Larson 1	25.6	COS.6	6.6	16	3.9	Good	0.4	0.9	Calcitic			Nov-11	0	
Larson 2	Larson 2	5.6	GIT	6.2	12.3	1.6	1.4	1.9	2.4	Calcitic			Nov-11	8	
Larson 3	Larson 3	28.7	AGE	5.9	10.8	1.5	2.3	2.7	3.1	High Mag			Nov-11	67	
Larson 4	Larson 4	10.3	GIT	6.1	11	1.3	2.4	2.9	3.6	High Mag			Nov-11	25	
Mark 6	Mark 6	2	AGT.4	5.8	10.1	1.5	1.9	2.1	2.4	High Mag			Jan-06	4	
Mark 7	Mark 7	3.4	AGT.4	5.8	10.1	1.5	1.9	2.1	2.4	High Mag			Jan-06	6	
Mark Flat	Mark Flat	10	AGT.2	5.6	7.5	1	3.6	3.9	4.4	High Mag			Nov-11	36	
Otten	Otten	12	GIT	6.6	12.8	3.6	Good	0.5	1.2	Calcitic			Jan-06	0	

Table 8 Lime Recommendations

FSA ID	Map Id	ACRES	Crop	pH	Mg (%)	K (%)	Tons per Acre 100% CCE			SOURCE	Date Applied	Rate Applied	Date Sampled	Tons needed/fld @ 6.5	K:Mg Ratio Imbalance
							Target pH Range								
Martindale	Martindale	8.2	AGT.2	6.3	13.9	0.8	0.8	1.2	1.6	Calcitic				Jan-08	7
Mike 1	Mike 1	5.7	GIT	5.9	6.3	2.9	2.6	3.1	3.5	High Mag				Nov-02	15
Mike 2	Mike 2	6	GIT	5.8	6.4	2.2	3.5	4.0	4.5	High Mag				Nov-96	21
Mike 3	Mike 3	4.2	GIT	0	0	0				High Mag				Nov-02	0
Mt. Vision 1	Mt. Vision	19.5	COG.3	5.9	13.5	1.8	1.4	1.7	1.9	Calcitic				Apr-11	28
Mt. Vision 2	Mt. Vision	24.9	COG.3	6.3	11	1.8	1.1	1.7	2.2	High Mag				Apr-11	28
Mullane	Mullane	15.8	GIT	6.7	18.6	2	Good	0.0	0.6	Calcitic				Apr-11	0
Osterout	Osterout	12.2	COS.6	6.8	15.5	3	Good	Good	0.3	Calcitic				Apr-11	0
Palmatier 1	Palmatier 1	15	GIT	6.4	11.7	0.7	0.4	0.8	1.1	High Mag				Nov-11	6
Palmatier 2	Palmatier 2	15	COS.1	6.8	12.9	1.7	Good	Good	0.5	Calcitic				Nov-11	0
Palmatier 3	Palmatier 3	8	GIT	0	0	0				High Mag				Jan-00	0
Pier 1	Pier 1	8	COG.6	6.3	12.7	1.1	1.0	1.4	1.9	Calcitic				Nov-11	8
Pier 2	Pier 2	10	COS.6	6.2	7.3	0.7	1.2	1.6	2.0	High Mag				Nov-11	12
Pier 3	Pier 3	7	GIT	0	0	0				High Mag			No Manure		0
Prager 1	Prager 1	10.7	GIT	6.1	11.9	0.6	1.7	2.0	2.5	High Mag				Nov-11	18
Prager 2	Prager 2	11.3	GIT	5.9	9.6	1.2	2.3	2.7	3.1	High Mag				Nov-11	27
Prager 3	Prager 3	9.4	GIT	5.9	10.5	1.4	2.6	3.1	3.5	High Mag				Nov-11	25
Prager 4	Prager 4	10.4	GIT	0	0	0				High Mag				Nov-96	0
Prager 5	Prager 5	8.5	GIT	0	0	0				High Mag			No Manure		0
Prager Lfield	Prager Lfield	8.6	GIT	0	0	0				High Mag			No Manure		0
Rumple 1	Rumple 1	11	AGT.3	5.8	9.6	1.3	1.9	2.1	2.4	High Mag				Apr-11	21
Rumple 2	Rumple 2	9.1	GIT	7.1	18.4	2.4	Good	Good	UseAMS	Calcitic				Jan-08	0
Rumple Flat	Rumple Fla	12.5	Idle	0	0	0				High Mag				Jan-00	0
Scott 1	Scott 1	32	GIT	0	0	0				High Mag			No Manure		0
Schmidt 1	Schmidt 1	10.9	COS.4	5.9	8.5	1.2	2.0	2.4	2.7	High Mag				Apr-11	22
Schmidt 2	Schmidt 2	20.7	COS.4	6.2	10.8	1.8	1.0	1.3	1.7	High Mag				Apr-11	21
Schmidt 3	Schmidt 3	11.2	COS.4	5.8	7.2	1	2.9	3.2	3.7	High Mag				Apr-11	32
Schmidt 4	Schmidt 4	17	COS.4	6	7.7	1	2.4	2.9	3.4	High Mag				Apr-11	41
Schmidt 5	Schmidt 5	7.1	COG.4	6	4.6	1.1	2.4	2.9	3.4	High Mag				Apr-11	17
Schmidt 6	Schmidt 6	10.5	COG.4	6.1	12.5	1.5	1.7	2.0	2.5	Calcitic				Apr-11	17
Schmidt 7	Schmidt 7	6.5	COG.4	6.2	10.2	1.7	1.2	1.6	2.0	High Mag				Apr-11	8
Solomon 1	Solomon 1	12	COG.3	6.6	6.6	2	Good	0.3	0.7	High Mag				Apr-11	0
Solomon 2a	Solomon 2a	14	SOY.1	6.8	12.4	1.4	Good	Good	0.3	Calcitic				Apr-11	0
Solomon 2b	Solomon 2b	6	SOY.1	5.8	9	1	2.2	2.5	2.9	High Mag				Apr-11	13
Solomon 3	Solomon 3	12	COG.5	6.8	8.5	1.8	Good	Good	0.3	High Mag				Apr-11	0
Solomon 4	Solomon 4	9	COG.3	6.8	8.5	1.8	Good	Good	0.3	High Mag				Apr-11	0
Solomon 5	Solomon 5	6	AGT.3	6.4	12.2	1.8	0.4	0.8	1.1	Calcitic				Apr-11	3
Solomon 6	Solomon 6	5	COG.3	5.8	8.1	2.9	2.5	2.9	3.3	High Mag				Apr-11	13

Table 8 Lime Recommendations

FSA ID	Map Id	ACRES	Crop	pH	Mg (%)	K (%)	Tons per Acre 100% CCE			SOURCE	Date Applied	Rate Applied	Date Sampled	Tons needed/field @ 6.5	K:Mg Ratio Imbalance
							6.5	6.7	7						
Target pH Range															
Solomon 7,8	Solomon 7,	10.7	COG.1	7	8.2	1.3	Good	Good	0.0	High Mag			Apr-11	0	
Solomon 9	Solomon 9	10	AGT.2	6.7	6.6	1.5	Good	0.0	0.4	High Mag			Apr-11	0	
Tambasco	Tambasco	19.7	AGE	7.1	18.2	3	Good	Good	UseAMS	Calcitic			Nov-11	0	
Twomey 1&5	Twomey 1&	50	COS.8	7	14.6	3.8	Good	Good	0.0	Calcitic			Apr-11	0	
Twomey 2	Twomey 2	14.4	CC.1	7.3	16.5	4.1	Good	Good	UseAMS	Calcitic			Nov-11	0	
Twomey 3	Twomey 3	6	AGT.2	6.5	13.3	1	0.0	0.8	1.3	Calcitic			Nov-11	0	
Twomey 4	Twomey 4	12	AGT.2	6.8	15.6	1.1	Good	Good	0.6	Calcitic			Nov-11	0	
Twomey 6	Twomey 6	6	AGT.2	6.5	19.5	2.4	0.0	0.3	0.5	Calcitic			Apr-11	0	
Twomey 7	Twomey 7	8.4	AGT.8	0	0	0				High Mag			Mar-00	0	
Woodbull	Woodbull	12	AGT.4	6.6	18.7	1.6	Good	0.2	0.4	Calcitic			Apr-11	0	
Young 1	Young 1	17.2	CC.1	6.2	13	1.5	1.4	1.9	2.4	Calcitic			Apr-11	25	
Young 2	Young 2	13.2	COG.8	6.9	16.2	3.3	Good	Good	0.2	Calcitic			Apr-11	0	
VTA	VTA	0	GIT	6.7	15.8	10.8	Good	0.0	0.4	Calcitic			May-09	0	2.23

1936.8

1936.8

Total Acres

Total	Tons	ENV	Cost/ton		
		1,057	100%	\$37.00	\$39,117.10
Total w. ENV	Tons w. ENV	2,114	50%	\$37.00	\$78,234.20

If the K:Mg ratio is greater than 1.5:1 crop and animal performance can be impaired: Prioritize to correct sooner than later. If 1.1 to 1.49, take measures to correct before reaching

V. RECORD KEEPING

A data base program has been supplied to the farm for entry of records. A copy of the record keeping forms has been supplied to the farm by email.

VII. CONTACT LOG

Date	Summary
2/13/2005	Reviewed plan and general farm information
2/17/2005	Entered soil test results
2/18/2005	Sent and email to Mark regarding dropped and added fields
2/19/2005	Reviewed manure recommendations
2/21/2005	Mark called regarding an email said I needed to talk with Lenny P
3/12/2005	Confirmed fields planned for manure
3/13/2005	Entered field info into NMP
3/14/2005	Set up an appointment with Mark
3/15/2005	Reviewed Appendix D and sent Mark an email with Clean Air info
3/21/2005	Sent email to Mark
3/31/2005	Tony from NRCS called and does not have field assessments
4/3/2005	Reviewed assessments from John Wilcox
4/25/2005	Mark called regarding clean air info sent to him
4/29/2005	Downloaded soil test and sent a copy of results to Mark
4/30/2005	Mark called frustrated about sample results and wanted to resample.
6/30/2005	Farm visit with Kim Scamman for MHWW and GFA
7/18/2005	Mark called regarding Scamman's proposal.
9/14/2005	Mark called to update progress.
10/17/2005	Sent and email to Mark regarding soil samples needed.
11/4/2005	Called Mark regarding soil sampling questions.
3/17/2005	Calculated MHWW loading rates and determined field assessments still needed.
3/18/2005	Determined risk levels and sent update and Appendix D to Mark.
3/23/2005	Mark signed Appendix D and asked about fuel registration and DEC SPES No.
10/6/2005	See carbon copy notes
10/15/2005	Visited Mark to load manure record program and completed a farmstead assessment
11/15/2005	Reviewed NMP.
1/3/2006	Discussed fertilizers with Mark
1/22/2006	Met at the farm for crop records and spreading records
2/5/2006	Updated new crop information
2/6/2006	Updated cow numbers.
2/7/2006	Downloaded records and evaluated.
2/8/2006	Continued to evaluate records.
2/21/2006	Emailed Mark regarding loose ends.
2/23/2006	Mark called regarding a couple of fields not listed correctly. Updated cow numbers.
2/27/2006	Met with Mark and Dana to review need for certification of pits.
3/1/2007	Responded to Marks email.

3/14/2007	Mark called regarding Farm.
4/13/2007	Scott Fickbohm called regarding closing on MSA for MHWW. Called Mark about storage of MHWW.
4/30/2007	Mark called to report progress of collecting water
9/5/2007	Spoke with Mark regarding corn crop
9/13/2007	Returned message to Mark regarding no fall seeding after 8/15 unless grass seeding.
10/16/2007	Farm visit with Dana to perform MSA certification. Discussed MHWW options with Mike.
10/19/2007	Met with Mark regarding Solomon's land.
10/30/2007	Calculated MHWW production
10/31/2007	Called Mark with data on MHWW production
11/7/2007	Picked up storage certification for HVF.
11/13/2007	Left message with Toni Cioffi
11/14/2007	Mailed out a variety of information
2/6/2008	Received Marks planning for 2008 on 2/5/08 and reviewed plan
2/21/2008	Recommended manure for Solomon's
March-April 2008	Various calls regarding line with K
4/3/2008	Reviewed soil test needed
4/11/2008	Mark called regarding changes to HVF6 and Hinkley 4
8/22/2008	Phone conservation with Mark regarding Duck Unlimited Project, heifer pasture, and MSA.
10/16/2008	Farm visit during rain event and concerns were addressed.
1/21/2009	Determined manure samples needed
1/31/2009	Mark called regarding Side N
2/5/2009	Planning continued
4/22/2009	Emailed Mark regarding VTA
5/21/2009	Farm visit with Jeanine outlining various practices
5/29/2009	Soil samples entered into 2009NMP
6/2- 6/3/09	Called L.M regarding ISNT fields. Mark was going to short through possible fields.
6/5/2009	Called Jeanine regarding heifer area and diversion ideas.
10/29/2009	No need for Manure samples until spring
1/7/2010	Farm visit to go over needs.
1/14/2010	Called Mark with freeboard for Tank 1 and tank 2 as requested.
1/18/2010	Completed Rusle2 recalculations. Created 2010 NMP and updated 2009 actual crops. Manure records need to be reevaluated.
2/18/2010	Reviewed 2010 Crops planned by Mark
2/18/2010	Advanced 2010 crops and added new seeding, soy and cos.1 to 2010. Updated manure analysis. Added manure records to NMP
3/2/2010	Added dump truck capacity to manure record keeping program. Review information needed.

3/3/2010	Met with Mar to go over updates and deliver NMP (see notes)
3/3/2010	Mark called and expresses that the bedding has changed to some degree and he would email the details.
3/4/2010	Created eNMP
3/5/2010	Sent Mark eNMP for 2010 and fields to be rotated.
3/9/2010	Started Farmstead information for 2010 update See notes
3/17/2010	Mark called regarding Maras email. Need to talk to Janine about ISNT
5/3/2010	Review farmstead Update
9/15/2010	Manure samples need to be sampled.
10/7/2010	Mark called regarding copy of Appendix D. Mailed 2 copies to him.
10/14/2010	Farmstead visit to complete Environmental Audit. Requested soil and manure samples. Depth markers still not in place.
11/11/2010	Farm visit with Aaron Weiss, Mike and Matt Jahnke to do site survey, VTA solutions and manure transfer solution.
11/12/2011	Email to Weiss and Janke
11/19/2010	Mark called about precision feeding meeting. Told him it was a good idea and Mike/Matt should attend. Mara sent soil and manure samples need to Mark by email.
12/13/2010	Completed Schmid Field assessment. Left Mark a copy of fields planned not to receive Manure, they need updated soil samples.
12/14/2010	Updated spreading setbacks for Schmid tract and completed Rusle2 for them as well.
12/15/2010	Mark called to discuss updates. See notes.
12/16/2010	Mark called. Go ahead with survey. No VTA in alfalfa. See notes.
2/16/2011	Went over fertilizer and manure information
3/2/2011	Checked crop rotations. See notes
3/3/2011	Generated CY2010 Summary report and emailed to mark. Entered comments in NMP narrative about manure results. Review see notes
3/7/2010	Phone call with Mark regarding HVF 7. Emailed breakdown of eNMP by crop
3/14/2011	Update farmstead for 2011 (see notes)
3/18/2011	Met with Mark for updates needed (see notes)
4/25/2011	Updated NMP 2011 (see notes)
4/26/2011	Emailed Mark soil sample evaluation summery
5/13/2011	Owner selling Solomon's 2A & 2B, Burton 1 will be AGE
5/23/2011	All soybeans to be corn now due to weather. Going to use starter bought for beans
7/27/2011	Have had several discussions regarding by VTA and concerns. Going to stay the course. Emailed Aaron W to call MS. Need to do slopes etc.
8/23/2011	Took "Spring" manure records. Mark has "fall" manure book to be completed.
8/30/2011	Spoke to Aaron about concerns with pipe plugging due to organics. Jahnke closed off "drain" from under roof that was leaking manure water into inlet box/drain.
9/3/2011	Sent email of barn drawings for Mark and mike

9/6/2011	Sent SPCC information and crop rotations. Waiting to hear back on "information missing"
9/8/2011	Mark lost 1/3 of corn crop. Water to tassels. Heifer manure pit overtopped.
9/21/2011	Met with Mike to review heifer drawing. Lots of changes see notes
11/9/2011	Spoke with Mark he has two more weeks of combining. Check into chemical spray for volunteer corn in soybeans. Aggressive plan for next year due to low forage
11/23/2011	41 soil samples taken with field assessments. Green 20 was on map twice labeled southern 20 as 21 (next to Burtons)
12/30/2011	Updated contact log and NMP updates.